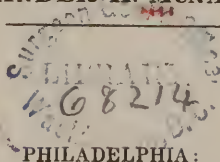




SUGGESTIONS
TO PARENTS AND OTHERS
ON THE
PHYSICAL AND MEDICAL TREATMENT
OF
CHILDREN,
ALSO
DISEASES OF FEMALES,
TOGETHER

With a practical account of all the diseases to which the human body is liable, and more particularly of diseases of the spine, consumption of the lungs, dyspepsy and nervous affections.

BY ALEXANDER H. McNAIR, M. D.



PHILADELPHIA:

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Eastern District of Pennsylvania, to wit :



BE IT REMEMBERED, that on the ninth day of December, Anno Domini One Thousand Eight Hundred and Thirty-seven, A. H. McNair, M. D., of the said District, hath deposited in this office the Title of a Book. The title of which is in the words following, to wit :

Suggestions to Parents and others, on the Physical and Medical treatment of Children, also diseases of Females : together with a practical account of all the diseases to which the human frame is liable, and more particularly of the diseases of the Spine, Consumption of the Lungs, and Nervous Affections, by A. H. McNair, M. D. of the City of Philadelphia.

The right whereof he claims as author in conformity with an Act of Congress, entitled "An Act to amend the several Acts respecting Copy-Rights."

F. HOPKINSON,

Clerk of the District.

P R E F A C E .

THIS work is designed to take a systematic, and practical survey of the most interesting features of the science and practice of medicine, for the purpose of elucidating what has been found obscure, controverting and correcting what has been felt erroneous and developing, by new and original views and hypotheses, much of what yet remains to be more satisfactorily explained, has derived its origin from the following circumstances.

The author being, in the year 1835 earnestly and repeatedly pressed, to publish a work on the practice of Physic, for the use of parents and others, but his professional duties compelled him, with much reluctance, to decline the invitation at that time, and the same cause would have prevented him at the present period from fulfilling the request, had not circumstances caused him to believe it to be his duty to comply.

The causes which induced the author to yield to the request of his friends at this time, were his knowledge of the destructive impositions, which are practised upon the unsuspecting, by base pretenders, who have taken upon themselves the great responsibilities which the practice of physic requires, without having spent one hour in trying to qualify themselves for that important duty. And for the purpose of protecting the afflicted and stopping the desperate ravages which are daily made by those imposters. The author knew of no better method, than that of trying to enlighten the public mind on the nature of disease and medicine, by a treatise of this kind, which if read with care, will enable the friends of the afflicted to be in some degree, able to detect the ignorant medicator, and also, enable them to prescribe, in cases of emergency, or in the absence of a physician, circumstances which often occur, not only in the country but cities. But notwithstanding there are many cases of sickness where the seasonable exhibition of a remedy, administered by an intelligent friend

at the commencement of a disease, may prevent a protracted illness and be the means, perhaps, of saving the life of the sufferer, the author does not wish to convey the idea, that every ignorant nurse is to be permitted to prescribe medicine at random in all cases of acute disease.

But the impositions which are practised upon the public, by men who have no claim to the profession, is not the only cause which has induced the writer to engage in this work at the present time. There appears to be a backwardness on the part of some men who belong to the faculty to improve the science, which is to be lamented, for there appears to be a strange repugnance in many to admit any new discovery, however beneficial to mankind; of those we could mention many, but the following must suffice.

At the time when the European Surgeons discovered that disease of the spinal marrow and nerves, were the cause of almost all those chronic affections to which the human frame is liable, such as consumption of the lungs, rheumatism, gout, dyspepsy, convulsions, insanity, and nervous diseases in general, it made its way through that country with the greatest difficulty.

And at the present time in this city, the more illiterate part of the members of the faculty, notwithstanding the ample testimony they receive from the foreign medical journals, together with the numerous cases of successful treatment of the above diseases by proper attention to the spinal nerves, continue in their disbelief of the spinal marrow being the cause of these chronic affections. How necessary, therefore, is it for the afflicted, who may have been so unfortunate as to have employed a physician of this description, to be able in some degree to detect his error.

As the writer believes there has been some improvement made in this particular, and remedies discovered or differently applied of which no account has yet been given in any practical treatise of this kind, and it may be of importance to the public to have some information on the subject, for the purpose of trying to convince those physicians who are sceptical, of their error. The author has spared no pains in collecting all the information in his power from different European writers, together with their success in practice, in hopes of being able to prove to them how necessary

it is for a practitioner to be void of prejudice; to abound with candor and embrace real improvement with eagerness.

The author for the purpose of rendering the work convenient, has divided it into three parts; the first will embrace the physical and medical treatment of children, together with the way of distinguishing one disease from another.

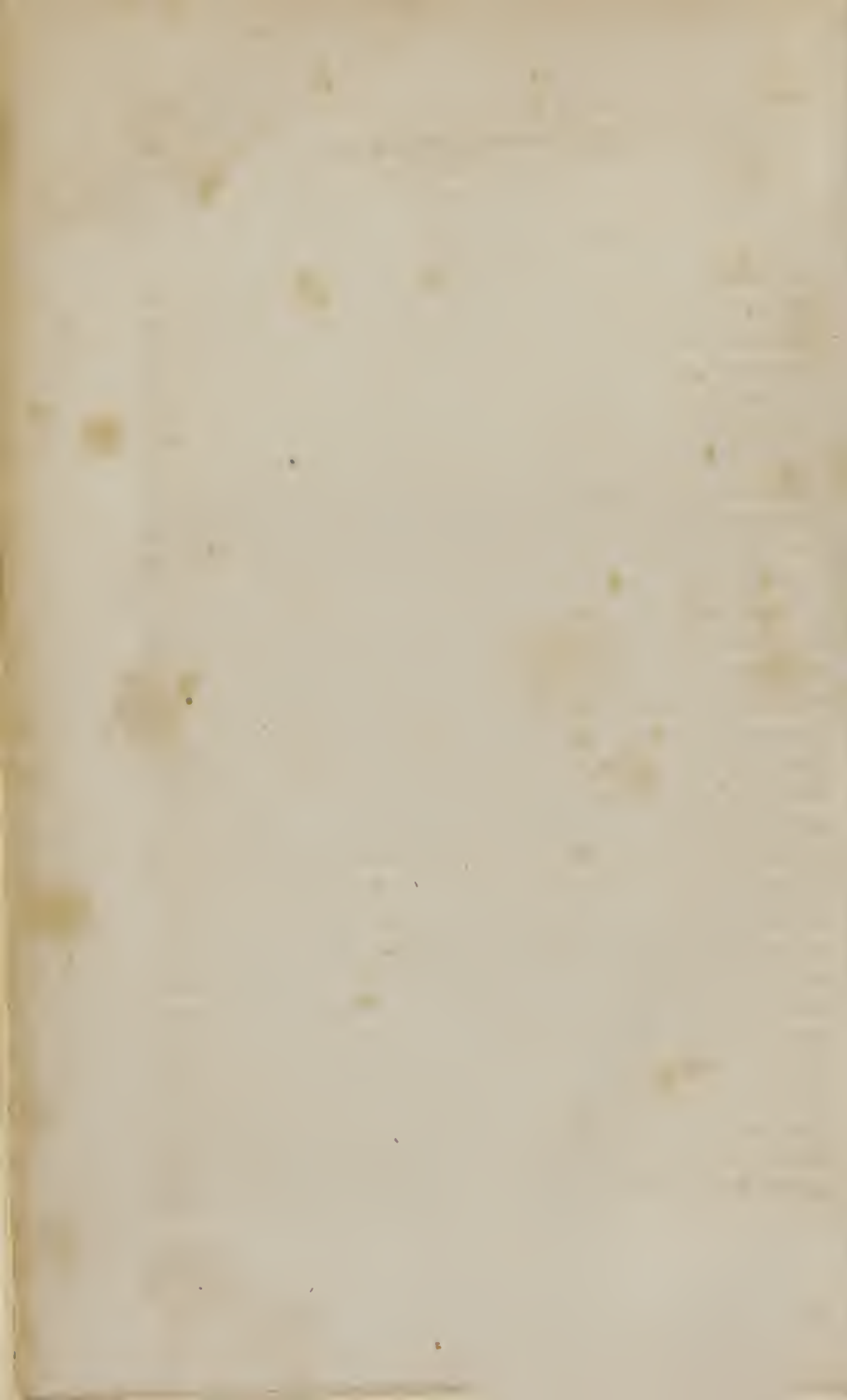
Secondly—Of diseases of Females, and the cause of disease of the spine, and consumption of the lungs in adults.

Thirdly—Of diseases in general, together with their treatment at the various periods of life.

In the composition of this work, an effort has been made to exhibit a distinct view of the general phenomena and principals pertaining to the various subjects which it embraces, with an especial endeavor to avoid the extremes of unsatisfactory brevity on the one hand, and of fatiguing prolixity on the other; an endeavour has also been made to exhibit the work as free from art as the nature of the subjects will admit.

With the hope that it may be of use to some afflicted being, the author sends it into the world without any other apology than that it has been remarked, some where, by a great writer, that a book once published, is like a life come to its final consummation;—irrevocable;—needing no apologies, if generally good, admitting none if it be not so. If any author, however, may justly claim the lenity of criticism, it is the medical practitioner, who writes and publishes, under circumstances every way hostile to correct composition, and detects in his progress defects and errors, when the printer's stamp, like that of fate, has fixed their perpetuity.

☞ The author has inserted in the second part of the work a view of the spinal marrow and nerves, for the purpose of enabling the reader more easily to comprehend the cause of nervous affections, and also for the purpose of enabling the writer to explain and point out more plainly, the effects which are produced in the various organs of the human body by disease of the spinal marrow, when at the same time the bones of the spine may be in a healthy condition.



THE INTRODUCTION.

OF ENQUIRIES TO BE MADE.

To obtain a competent history of any disease, such enquiries are to be made, and circumstances known, as show the genus and state of the case ; also the operations and effects of the medicines are to be carefully observed. A particular regard must be had to the symptoms, which differ strongly in different subjects, on account of the various constitutions of different bodies. For we often see the same food, the same cathartic, the same emetic, and even the same poison produce various effects in different constitutions ; likewise the morbid causes of the same nature, produce different appearances of the disease, with regard to the symptoms and differ according as the subjects differ.

It will be therefore necessary to inquire into the age, sex, structure and natural habit of the body, as well as the acquired habits and strength of the patient, and whether he has an hereditary disposition to disease. In children there is a remarkable softness of the fibres, a lax and thin habit, with an abundance of serum. Young persons have tense and contractile fibres, with more hot blood, which is also more apt for motion ; those that are old have a great rigidity of the solids, and a straightness of the passages, vessels, and canals. From this different constitution of the parts arise the different states and mechanism of the solids and fluids and a proneness to certain diseases, as also the variety of manners and inclinations. Likewise regard must be had to the female sex ; for they are not only obnoxious to different diseases, to which males are afflicted, but the system of their nerves is likewise more irritable, hence they are more liable to spasmodic and convulsive disorders, and are more easily restored to health than men. Those diseases are generally very distinct, but their complications are very various, and sometimes predominate over the other symptoms, so as to resemble certain topical affections, and thus lead the practitioner astray.

Those affections even in their more acute form, come on insiduously, and the patient becomes gradually and insensibly incapacitated for exertion, either of mind or body. This state of unconscious disorder perhaps endures for many months, before it attracts the serious attention of the patient, or her friends; and when a medical opinion is taken they are usually sufficiently characterized by a general feeling of weakness with tremor, headache or vertigo, fluttering, faintness, tendency to perspiration on the least exertion or surprise; susceptibility to hurry and agitation, weariness, aching, and loss of flesh; and with these symptoms there are peculiar states of the countenance, of the tongue and internal mouth, of the general surface, and of the evacuations; all of which must be attended to.

In diseases of men, enquiry must be made into the kind of life, whether it be laborious or inactive; accustomed to exercise or sedentary; whether the person be a courtier or a soldier, a student or a tradesman; whether he be conversant among metals and minerals, or worker at the fire; for every kind of life produces particular diseases.

As there are no persons but what are apt to be guilty of an excess of one kind or other, it will be necessary to enquire into their diet, drink, sleep, exercise, use of tobacco and in our age the drinking of coffee is very common, and I fear a great cause of delicate health. Patients are generally excessive in the use of medicines and other things; all which errors have some influence upon the body, and ought to be enquired into and corrected.

Another thing to be examined, is the secretions; for unless these are regular, health cannot be maintained, and therefore if they are too plentiful, defective or suppressed, they will cause various diseases. Hence if a person begins to be costive, it is generally the forerunner of some disease. Regard is also to be had to perspiration, which carries off more matter than all the *excretory ducts* besides. This depends greatly upon clothing and keeping the body in equal warmth, as also upon the warmth and moisture of the feet; on the other hand, if the feet are dry and cold, and their pores contracted, it shows that perspiration is stopped. Hence if in cold, moist, changeable, or unequal weather, as also in the

vernal and autumnal seasons, the perspiration of the body is greatly diminished, it becomes languid and subject to the reigning diseases.

A man generally takes more food than is necessary to generate blood and serum, and the common exertions are not sufficient to carry off superfluous humours, extraordinary ones sometimes happen at stated times: hence originate bleeding at the nose, and large sweats, hoarseness, cough, and if these are suppressed, dangerous diseases may arise. Wherefore it is highly hazardous to suppress secretions of this kind. Also great passions of the mind, especially anger, which constrains the small vessels, very cold air, sudden refrigerating of the body; produce dangerous stagnations of the fluids, and sudden, and dangerous diseases in the vital organs.

It is likewise necessary to enquire whether the patient is plathoric, or abounding with bad humours, or what is the state of the stomach and intestines, whether subject to eruptions, wind, or spasms, with costiveness, and if he be hypochondriac; what is the condition of the liver; has the circulation, though it be impaired, whether the bile is duly secreted; which will appear from the colour of the face, moreover, enquiry must be made into the state of the lungs, and whether they are sound; which will appear from the breathing being easy or difficult. Lastly the condition of the brain and nervous system is to be examined, and determined from the nature of the sleep, affections of the mind and disturbance of the imagination.

WAY OF DISTINGUISHING ONE DISEASE FROM ANOTHER.

The method of distinguishing the various kind of diseases, will be found prefixed before the account of the disease, and therefore is omitted in this place with the exception of a few introductory remarks. One of the means of distinguishing complaints is by the pulse. That motion, or beating of the arteries, which we commonly call the pulse, is occasioned by the blood's being first thrown into them by a quick, strong effort of the left ventricle of

the heart, and then moving on from larger into more contracted vessels, whereby the resistance is more and more increased, till in their capillary terminations it becomes greatest of all. In consequence of this resistance, the arteries are distended, and this distention, or diastole, as soon as the distending cause ceases, that is, when the flux of blood into them is suspended, must be succeeded by a contraction, or systole, because the arteries, chiefly through their elasticity, but partly by their muscular contraction, restore themselves; whereby the blood is urged into the venous system, the semilunar valve at the mouth of theorta hindering its reflux into the heart.

With regard to the motion only, there are but four kinds of pulse: great and little, quick and slow. When quickness and greatness are joined together, it becomes violent; and when it is little and slow, it is then called a weak pulse. The pulse is also said to be frequent and rare, equal and unequal; but these are not the essential affections of motion; frequency and quickness are often confounded with each other.

A pulse is said to be hard or soft, with regard to the artery, according as it is tense, and hard or soft, or lax; for the disposition of the arteries contributes greatly to the change of the pulse; wherefore it sometimes happens that the pulse in both arms is not alike, which is very common in a case of palsy. Add to these, a convulsive pulse, which does not proceed from the blood, but from the state of the arteries, and is known by a tremulous subsultory motion, and the artery seems to be drawn upwards; this, in acute fever, is a sign of death, and is likewise generally unequal and intermitting.

A great pulse shows a more copious afflux of blood to the heart, and from thence into the arteries. A little pulse, the contrary.

If the weight of a person be 160 pounds, then 80 of that will consist of fluids. If he be healthy, the pulse will beat 70 times in a minute. The pulses of persons differ according to the largeness of the heart and vessels, the canals, and as also with regard to the sex, age, seasons, air, motion, food, sleep, watching, and passions of the mind. The pulse is larger and more quick in men than women. A drastic purge or an emetic renders the pulse hard, quick, and weak, with loss of strength; chalybeates and the bark

render it strong and the complexion lively. Volatiles enlarge and increase the pulse. Acid and nitrous remedies refrigerate the body, and appease the pulse. Opiates, and the like, render it small and weak, and decrease the elasticity of the solids. Medicines composed of sulphur increase the pulse and the strength; poisons render it small, contracted, and hard.

When the quantity of blood is too great in the human body, bleeding raises the pulse, which is also rendered violent by warm baths, especially if they are too hot; likewise bathing the feet at bed-time, increases the motion of the blood. An intermitting pulse is, for the most part, dangerous, though sometimes otherwise, especially in hysterical cases and colic; sometimes it proceeds from worms, or a polypus in the heart.

Though in all fevers there is a frequent pulse, yet it is not always a sign of a fever; for in children, and bilious constitutions, it is generally so, as also after bathing and sudorifics, and in passions of the mind; likewise after an attack of epilepsy and drunkenness, the pulse is always more frequent, even without a fever. Therefore, enquiry should always be made, whether the frequency of the pulse arises from any external cause, and whether there are any other essential signs of a fever, as horror, and a refrigeration of the extremities; but this is seldom taken notice of. The pulse is not quick in all fevers, but more hard than natural; and there are few fevers in which the pulse is not harder than common, malignant sweating fevers excepted. Fevers in general are attended with a universal spasm of the nervous and vascular system, including the tunics of the arterial vessels, which consist of nervous and muscular fibres. This spasmodic stricture of the fibres, contracting the capillary vessels, renders the pulse more quick, and heats the blood by attrition, whence proceeds a heat of the body.

In the beginning of a continual fever, or fit of an intermitting, the pulse is generally tense, small and frequent, which increases in proportion as it proceeds to the state when it is strong and violent, but in the decline, the sensation and quickness remit, and perspiration begin to succeed.

Mode of examining the Pulse.—Not to be examined immediately on entering the patient's room; the examination to be repeated at

short intervals; should be felt in both wrists, the arm having its muscles relaxed by a proper position; two or three fingers to be applied to the artery; thirty or forty pulsations are to be felt at each examination; talking must be forbidden.

A KNOWLEDGE OF THE NERVES, OF IMPORTANCE IN DISTINGUISHING DISEASES.

An acquaintance with the nervous parts, is of great use in the practice of physic; for without an accurate knowledge of these, many symptoms of diseases can scarcely be explained, though it has not hitherto been sufficiently attended to. That there cannot be a more important subject of investigation than the present, must be admitted by every [intelligent surgeon. The brain, as the organ which unites our moral and physical natures, exercises unbounded sway over our mental and corporeal faculties and functions; while its slight deviations from health involve derangements of numerous other organs and structures in the living machine; those peculiarities of the sensorium, its appendages and its coverings, render an investigation of their disorders so extremely difficult and perplexing, that nothing but the most ardent, unwearyed and systematic course of study and pathological research, can be at all expected to throw light on the obscurity of the subject.

It is to be observed, that the nervous membranous parts are first the membranes of the brain and spinal marrow, then the nervous membranes, which invest the organs of the senses, the eyes, ears, nostrils, mouth and fauces; add to these, those which cover the bones of the head, teeth, joints, and muscles: Likewise the *œsophagus*, *stomach*, and the whole volume of the intestines, which is entirely nervous and membranous. Harmony consists through the whole system of the bilious and urinary ducts, the bladder, glands and skin, which last is a complete web of the tendinous and nervous fibres. In all these parts there is a wonderful connection, constant sympathy, and communication of motions, as well as diseases, when they are affected by any violent cause; all which is by the intermediation of the nerves. When the nerves are mo-

lest, there arises a sense of pain, with a stricture of the adjacent parts, especially of the vessels; whence the motions of the blood and humours become irregular.

The irregular motions of the mind act directly on the nervous parts, and produce great disturbance in the whole economy of the vital and animal motions, such as a violent stricture and contraction of the parts, and again resolution and relaxation. A severe concussion of the brain, without injuring the textures of the parts, will cause an abolition of the senses, a falling, a nausea, vomiting, and convulsions. Sailing in a ship, or turning round swiftly, will produce a vertigo, with violent vomiting, together with great anxiety, paleness, langour, loss of appetite, &c.

Matter conveyed to the nervous fibres of the wounded skin, by the bite of a viper, scorpion, mad dog, or by an instrument moistened with the juice of white hellebore, oil of tobacco, or an arsenical liniment, will throw the nervous system into commotions and spasms, producing fever, syncope, sweat, and paleness of the countenance.

But the stomach has the most intimate sympathy with all the rest of the parts: for, let the nerves be hurt where they will, the stomach always suffers. Even a strong blow on the pit of the stomach has been fatal. Nothing makes this more evident than the taking of arsenic and corrosive preparations of mercury and antimony, as also drastic purges, which alone cause strong contractions of the whole nervous system.

These symptoms can be felt and understood by every person who has common understanding. But now we beg leave to invite the attention of our readers to a few remarks which may not appear so plain, and may be thought out of place by some, but they are intended only by us to call the attention of our readers who wish to be profited, to the importance of the subject. And if inquiries become interesting as the subject on which they are made is intricate, the following will, I think, be allowed to be one of this number.

There is not a more difficult point in pathology and practice, than that of ascertaining the actual seat or cause of disease. An irritation in one part will cause pain or some morbid phenomenon in a distant part; and these deceptive manifestations are not

obedient to any hitherto ascertained law of the animal economy. An irritating body or secretion in the digestive organs will, in ten different individuals, exhibit ten different effects, in kind as well as situation. We have at present no law by which we can accurately trace the chain of causations; therefore our great business is to collect facts and observations, as a basis for future medical legislation.

It is our desire to point out to our readers what we believe to be the cause and seat of most of those diseases of long standing, which so many of the human family are afflicted with during the principal part of their lives, namely, consumption, rheumatism, gout, general debility, and what is generally called dyspepsy. That these diseases proceed from pressure or disease of the nerves in some part of the body, no physician will deny. We believe that they proceed from pressure made upon the brain or spinal marrow, from whence the nerves take their origin, and our belief is founded upon experiments in practice, but for the purpose of proving our statement to be true, it would be necessary for us to take a cursory survey of the operations which the spinal column and its contents are designed to perform in the living subject; but as we intend treating the subject together with the cause and remedies in another part of this work, we will leave it here after quoting a passage for the purpose of convincing our readers that we do not stand alone in regard to our opinions.

We extract the following from observations delivered by Edward Harrison, M. D., formerly president of the Royal Medical and Royal Physical Societies of Edinburgh, he observes, "We are therefore led to conclude, that, although the animal functions are performed by the bramular nerves; those of organic life or such as are only intended to support the machine, are executed by the spinal nerves. In this view of the subject, a healthy disposition of the spine is indispensable to the well-being of the individual. That the inference rests upon experience we shall be able to prove by taking a review of the principal symptoms which occur in this disorder. When it affects the superior cervical bones, *deglutition** is impaired from pressure made upon the *cervical nerves*† in their

* Swallowing.

† Nerves which arise from the spinal marrow near the head.

course to the *pharynx* and *œsophagus*.* For the same reason a dry teasing cough and difficult breathing are occasioned by pressure upon the nerves in their way to the *pharynx* and *trachea*.† Projections in the *cervical* bones affect the arms with numbness, spasmodic twitching, and paralysis. They also produce uneasiness in respiration, with palpitations from slight causes. In the *dorsal vertebrae*‡ they induce a girding sensation over the stomach as if it were tied with cords. There is also indigestion, and oftentimes viciated appetite. The secretion of bile becomes diminished, the countenance looks sallow, and the patient labours under symptoms of jaundice. The belly is obstinately constipated, and the rectum refuse its offices. The fœces are often slimy, whitish, or clay coloured. He gets feverish, restless, emaciated, and affected with many symptoms which resemble consumption.

“The kidneys secrete little urine, and the bladder loses its expulsive faculty. In whatever part of the back the curvature is situated, the lower limbs are apt to be affected. Slight pressure upon the spinal cord produces debility and fatigue in walking. The legs cross each other; the patient is liable to stumble, and cannot go straight to any point. Greater pressure occasions muscular spasms, numbness, restlessness, and clammy sweats. A still greater depression produces imbecility of motion, and complete paralysis of the limbs.

NURSING AND MANAGEMENT OF CHILDREN.

We now purpose offering a few general remarks on the management of children, after which we shall proceed to describe their various diseases :

The business of nursing has been too long left to the management of women who cannot be supposed to have proper knowledge to fit them for such a task; who, fancying that nature has left a great deal to their skill and contrivance, often do much harm where they intend to do good. If children be brought up in a

* The muscles forming the gullet, or throat.

† The wind-pipe.

‡ The joints in the middle portion of the spine, or back.

plain, simple manner, they will undoubtedly have better health, more beauty, strength and spirits, besides understanding, also, as all the faculties of the mind are well known to depend upon the organs of the body.

That the treatment of children in general is wrong, unreasonable and unnatural, will in a great measure appear, if we but consider what a puny valetudinary race most of our people are; chiefly owing to bad nursing and bad habits contracted early. It is ridiculous to charge this upon nature, and suppose that infants are more subject to diseases and death than grown persons; on the contrary, they bear pain and disease much better. When was there a lamb, a bird, or a tree, that died because it was young; these are under the immediate nursing of unerring Providence, and they thrive accordingly. Were any further evidence necessary to support the assertion, that the treatment of children in general is wrong, unreasonable and unnatural we might produce the annual register of the dead, from which it is evident that nearly one half of the children in the city of Philadelphia die under eight years of age.

Among the poorer class of mankind, especially in the country, disease and mortality are not so frequent, either among adults or their children. The mother, who has only a few rags to cover her child loosely, and little more than her own breast to feed it, sees it healthy and strong, and very soon able to shift for itself, while the heir and hope of a rich family lies languishing under a load of unnecessary clothing which overpowers his limbs, abhorring and rejecting the dainties he is crammed with till he dies a victim to the mistaken care and tenderness of his fond mother. Is it not very evident when a child rids its stomach several times in a day, that it has been overloaded; it is swaddled and crammed on till after vomiting, purging, &c., it sinks under both burdens into a convulsive fit, and escapes any farther torture. Taking it then for granted that most of our nurses use the wrong method, let us endeavor in as few words as possible, to point out a right one.

The fact is, a new born child cannot well be too cool and loose in its dress. It wants less clothing than a grown person in proportion, because it is naturally warmer, as appears by the thermometer, and would therefore bear the cold of a winter's night

much better than any adult person whatever. This may serve to show that nature has made children able to bear even great hardships before they are made weak and sickly by their mistaken nurses; but, besides the mischief arising from the weight and heat of swaddling clothes, they are put on so tight and the child so cramped with them that its bowels have not room, nor the limbs any liberty to exert themselves in the free and easy manner they ought. To this doubtless are owing the many distortions and deformities we meet with every day.

If nurses were capable of making just observations, they might take notice of that particular delight which a child shows by all its powers of expression when it is newly undressed, how enraptured it is with this new liberty when indulged for a few minutes with the free use of its legs and arms.

The following dress is recommendable—a little flannel waistcoat, without sleeves, made to fit the body and tie loosely behind, to which there should be added a petticoat sewed, and over this a kind of gown of the same material, or any other that is light. The petticoat not quite so long as the child, the gown a few inches longer, with one cap only on the head at a time, the linen as usual; shoes and stockings are very needless incumbrances, besides that they keep the legs wet and nasty if not changed every hour, and often cramp and hurt the feet. There should be a thin flannel shirt for the night, which ought to be every way quite loose. Children should commence using this dress early, and continue it till they are three years old, when it may be changed for any other more genteel and fashionable.

Feeding children properly is of much more importance to them than their clothing, let us consider what nature directs in the case. In the business of nursing, as well as physic, art is very destructive, if it does not imitate nature. The mothers as they are now managed, seldom commence nursing their child till it is three days old; but then a young child is full of blood, its appetite is not awake, nor its senses open; and requires some intermediate time to compose and recover its strength and the change of circulation (the blood running into new channels) which always puts it in a little fever. It would be therefore better that the infant was not fed all this time, than as it is generally fed; for it would sleep

the greatest part of it, and when the mother was prepared to nurse it, it would be very hungry and take its food with more eagerness; nature indeed neither intended that a child should be kept so long fasting, nor that we should feed it for her. Her design is broke in upon, and a difficulty raised, which is wholly owing to mistaken management. The infant as soon as it begins to breathe is taken from its mother, and not suffered to attempt taking its natural food, until it accumulates in the breast in large quantities, but either fed with strange and improper articles, or put to nurse from some other woman, whose nourishment flowing in a full stream, overpowers the young infant that has not yet learned to swallow, and sets it a coughing, or gives it a hiccup; the mother is left to struggle with her load of nourishment which was intended for her child. Thus two great evils are produced—a prejudice to the child's health and the danger of the mother's life, from what is called a milk-fever, supposed to be natural, but in reality owing to this misconduct.

When a young woman is confined the first time, before the operations of nature have been perverted by any absurd practice, her suffering would be severe, and perhaps difficult; but in a few minutes after it is over, she and her child, if it be not injured, would fall into a sweet sleep of six or seven hours. The mother, if no poisonous opiate has been unnecessarily given her, would awake refreshed and the child hungry, (if not previously disordered by a stomach full of molasses, which is generally improperly given by the imprudent nurse,) and would feed freely; if nothing else be given it would grow strong, and the mother recover perfectly in a few days.

The nourishment which a child first receives from its mother's breast is purgative, and cleanses its stomach and bowels much better than any thing that can be given; no child, therefore, can be deprived of it without manifest injury. By degrees, it becomes less purgative and more nutritious; nor is the child well able to assimilate other food, till after the first three months. The calls of nature should be waited for to feed it with something more substantial, and the appetite ever precede the food. But this is never attended to, which is one of the greatest mistakes of all nurses.

There is also a great mistake in either the quantity or quality of

childrens' food, or both, as it is usually given them, because it makes them sick; and to this mistake may be justly imputed nine cases in ten of all their diseases.

Many are the faults in the quality of their food. It is not simple enough. Their paps, panadas, gruels, &c., are generally enriched with sugar, spices, and sometimes a little wine; neither of which they ought ever to taste, the sugar excepted, which is good food for children, if it is given alone or in water as food. Good bread is the lightest nourishment. The power of the due fermentation breaks and attenuates the tenacious particles of the flour. Cow's milk is also simple and light, but often improperly prepared. It should not be boiled, for that alters the taste and properties of it. A wholly vegetable diet is reasonably to be objected to, as it would turn sour in their stomachs—the first and general cause of their diseases. Vegetables are therefore very improper to feed a child wholly with. Some part of its diet should be contrived to have a contrary tendency, such only as we find in meat, which is the direct opposite to acid, and tends to putrefaction.

In a due mixture of these two extremes, correcting each other, consists that salubrity of aliment our nature seems to require. The mother's milk seems to be this true mixture of the animal and vegetable properties that agrees best with the constitution of a child. It would be advisable, therefore, that one half of the infant's diet be thin, light broths, with a little bread or rice boiled in them, which last is not so acescent as any other kind of meal or flour. Four times during the twenty-four hours, is often enough for a young child which does not take the breast to receive food. As to the quantity at each time; its appetite must be the measure; its hunger should be satisfied, but no more. They should not be laid on their backs to be fed, but held in a sitting position. When they come to be ten or twelve months old, they may be fed but three times a day, which they should never after exceed. By night they should not be fed at all, that they may be hungry in the morning. Their meals or nursing ought to be at stated times, the same hour every day.

When this plan is carefully pursued, the children kept clean and sweet, and carried out every day when the weather is dry, in six or eight months' time most children would become healthy,

strong, and able to sit alone; readily find out the use of their limbs, and soon shift for themselves.

It is very seldom that young children are troubled with family distempers. Indeed, when we find them affected with scrofulous or other diseases, we may suspect the taint to have been transmitted to them; but these cases are very rare in comparison with the many other causes, and without the least foundation, imputed to parents, when the real cause is bad nursing that has fixed them early in wrong habits. This plain natural plan, is scarcely ever followed; because some mothers who are independent, will not undertake the trouble of nursing their own children. The child nursed this way would always be quiet, in good humor, ever playing, laughing, or sleeping. I am quite at a loss to account for the practice of sending infants abroad to be nursed by a strange woman, and how it comes to pass that people of good sense do give up their children to the method, without considering how near it is to a common chance that they are destroyed by them. If the mother be healthy, nursing her child will confirm her health; if weakly, in most cases it will restore her. Dry-nursing is an unnatural and a dangerous method; scarce one in three survives it. But in cases where necessity requires it; for instance, if the mother die, the dry-nursing would be the best way in which the child could be brought up, providing a clean healthy female can be procured. The preference should be given to the middle aged, as having more nourishment than the young, and better than the old. This is a material consideration, as we may suppose each has her own child to nurse besides. Those should be procured, if possible, who have not been confined above two or three months.

A nurse should have great regard to her diet. She should eat one hearty meal of unsalted meat every day, with garden vegetables, and a little bread. Then broth or milk for her breakfast and supper. Her drink small beer, or milk and water, but no wine, strong drink or spirituous liquors.

Every child, whether dry-nursed, or otherwise, should be purged in a day or two after birth, and this continued for some time; not by regular doses of physic, but some convenient laxative, two or three times a day. The following may be used :

Take manna and pulp of cassia, each half an ounce; dissolve

them in about three ounces of thin broth; let the child take two spoonfuls, three times a day, varying the quantity according to the effect; which should at first be three or four evacuations from the bowels in twenty-four hours.

The nurse should be ordered to keep the children awake by day as long as they are disposed to be so, and to amuse them and keep them in good humor. As to feeding them, since it is not likely they should have nourishment enough to support two, it is best they should begin immediately with the method recommended above. If it be thought proper, they may now and then give them, as they grow up, a little bread and butter; the butter to be perfectly sweet, fresh, and in small quantities, not to turn rancid in the stomach and disorder the fluids of the body. They may be allowed any mellow fruit, raw, stewed, or baked; roasts of all sorts, in very small quantities. As soon as they have teeth, they may be gradually used to a little meat, but not before.

Though breeding teeth prove fatal to many children, yet I am confident it is not so from nature. Whatever fevers, fits, or other dangerous symptoms seem to attend dentition, healthy children have sometimes bred their teeth without them; whence we should suspect the evil not to be natural, but rather the effects of too great a fullness, or the humors put into agitation by the stimulus of cutting; but if the blood or fluids be perfectly pure, and not too redundant, the symptoms will be but light, and pass off imperceptibly.

The first and general causes of most of the diseases of infants are owing to acidity of the stomach, arising from their food. An easy and certain remedy, or rather preventive, is the magnesia, which at the same time that it corrects the acidity of the stomach, it likewise will answer as a gentle purge. Children of one year old may take it in doses of one or two drachms per day; a little at a time in all their food. The first tendency to disease may be observed in a child's breath. It is not enough that it be not offensive; it should be sweet and fragrant, like warm milk from a cow that feeds upon grass in the spring. It is always so with children in perfect health. As soon, therefore, as a child's breath becomes hot, strong, or sour, be assured that indigestion and surfeit have disordered and disturbed the stomach, and that now is the time to

apply a proper remedy, and prevent a train of impending evils. Let the child eat less, live upon milk or thin broth for a day or two; be carried, or walk, if able, in the open air; give it a little magnesia, and a single dose will frequently prevent the necessity of a great many.

There is a degree of exercise proper for children, which is of more consequence than is generally supposed. A child should be taught to walk as soon as possible—at a year old they should be able to walk alone. Most persons think it wrong to put weakly children upon their feet, especially if the legs are the least bent or crooked; but it will be found that crooked extremities will in time grow strong and straight by frequent walking, whereas by disuse they will become worse and worse every day. Increase their walks gradually, and before they are three years of age, they will be able to walk two miles at a walk.

Children should be made to lie straight in bed, with their limbs free and easy. They should be taught to use both hands alike. It would not be wrong to forward their speaking plain, by pronouncing words distinctly to them.

PART I.

DISEASES OF CHILDREN.

The author has long lamented the very improper method in which the diseases of children are treated by those who design them the greatest kindness, but whose mistaken opinions too often counteract their benevolent intentions. The laudable efforts of the fondest mother frequently becomes a source of manifold injury to her tender offspring, and this is not only the case among the more ignorant class of people, or in situations where medical assistance is procured with difficulty, but in the higher ranks of society; a strange opinion has prevailed from an idea, that physicians can have but a very imperfect knowledge of the complaints of infants, from the inability of children to give any account of themselves, and it is safer to intrust their management to some old woman or nurse, who, at least are not liable to do mischief by violent remedies, though they sometimes from want of a small amount of knowledge make use of improper and inadequate ones.

How fatal such a mistake must be, is surely sufficiently obvious since the destruction of infants is evidently the destruction of adults, of population, wealth, and every thing that can prove useful to society, or add to the strength and grandure of a nation. It may also be observed, that where mismanagement at this period does not actually destroy the life, it often very essentially impairs the health; the foundation of a future good or bad constitution being frequently laid in the state of infancy.

To the above idea I will venture to add, that although infants can give no account of their complaints in the manner we receive information from adults, their diseases are all plainly and sufficiently marked by the countenance, the age, the manifest symptoms, and the faithful account given by the parent, or an intelligent nurse. This I am so confident of, that I never feel more at my ease, in prescribing for any disease than that of infants, and never succeed with more uniformity, or more agreeable to the opinion I may have adapted of the seat and nature of the disease. Every distemper may be said, in some sense, to have a language

of its own, and it is the duty of parents and friends to be acquainted with it.

Having briefly stated this matter, as I hope with impartiality, and given it the attention its importance demands, I shall next proceed to describe the various diseases. I would observe, however, that the complaints of infants are more obvious than has been generally supposed, so their number is comparatively small, their cause uniform and the treatment of most of them, simple and certain.

FITS.

(*Convulsions.*)

Convulsions proceed from various causes during infancy. They often arise from irritation in the bowels, from teething, or in the course of eruptive diseases; frequently they proceed from the immediate affection of the brain or spinal marrow, and very often from acidity of the stomach.

Young infants are subject to a slight degree of spasms called inward fits, in which the mouth is during sleep, drawn into a smile, the eye-lids are not quite closed, and the eyes are turned up, so as to discover the white, the breathing seems to flutter, and the infant is very easily started. These convulsions appear to be produced by wind in the stomach or bowels for they are relieved after the wind passes off. This species of fits is certainly harmless, because the wind is not confined; and therefore, an immediate recourse to pukes or purges, is not likely to do more good than harm, by straining the stomach; all that is generally necessary is a gentle laxative, such as rhubarb in three or four grain doses.

Some infants, very early after birth, appear languid, moan, and pass dark coloured matter from the bowels, presently they fall into a state, resembling fainting, then convulsions, and die perhaps in a day or two after they are born. The early use of a few drops of the sweet spirits of nitre in such cases may be of great use for the purpose of stimulating the bowels and giving tone to the stomach, or the fourth of a tea-spoon full of castor oil may be given.

Regular convulsions may occur at a very early period of infancy, and in this case attack those children, who, from the time of birth have been subject to heavy sleep or to whine and fret, or start suddenly from their sleep, and who have twitchings of the extremities while awake.

Convulsions vary much in their degree and duration. Commonly the infant is seized quickly with a spasm of the muscles of the arms and legs, which are agitated to and fro, the fists are clinched, the body bent back, the features distorted, the eye-lids open, the pupils dilated, and the eye either fixed in the socket or rolling about, the face is either pale or livid. These convulsions may prove very suddenly fatal; but often after the fit has lasted 5 or 10 minutes it goes off and does not return. In other cases, it returns very frequently for several days, or at uncertain intervals for many weeks.

When a child is seized with a fit, a very great alarm prevails, and the physician is sent for in great haste, and when he arrives if the child is not dead or recovered, he is expected to use very prompt and active means, when in fact the parents or friends might do all that would be proper to be done at the time. The first thing that can be done is to order a warm bath and prepare a clyster of common table salt and water one table-spoonful to a pint of warm water.

The child is to be put into the warm bath, the face alone being kept above the water, and he is to be retained there for about eight or ten minutes, if the water keeps very warm during that length of time. If the fit does not pass off when the child is taken out of the bath, the clyster is to be given, and a large plaster of mustard is to be applied over the region of the stomach and bowels. As soon as the child is able to swallow, an emetic may be given, especially if we have reason to suspect that some indigestible or improper substance has been taken.

If the child be at the time of teething, and no other cause be discovered, it will be proper to cut the gum freely over that part where the teeth ought, according to the usual order of teething, to appear, even although no swelling be discovered.

General bleeding from the arm is seldom necessary, but leeches may be applied to the temples. Blood taken from the back of the

neck or from along the region of the spine with cups, has been of great benefit in many cases which have come under my care.

When convulsions are only apprehended in dentition, from starting, feverishness, and circumstances ascertained by former experience, to precede fits, a gentle emetic will be proper, three or four grains of Ipecacuanha may be employed with advantage; lime water may be given to young children in doses of a table-spoonful twice a day. After the period of infancy is past, and during the time when the second set of teeth are coming out, convulsions are generally of the epileptic kind; attack suddenly, the patient screaming out as if terrified, and then he falls down convulsed, and foaming at the mouth. When the fits go off, the patient is nearly or quite well. These do not indicate that the child shall be subject to them after he has grown. They are relieved by attending to the state of the gums, removing decayed teeth, and cutting the gum over the grinder which is coming out, but especially by keeping the bowels regular. Castor oil ought to be given frequently for the purpose of purging. Assafœtida, or camphor, given in small quantities, mixed with milk, have been of use when the face is pale; but if the face be flushed, or the arteries of the neck beat strongly, it will be proper to take an ounce or two of blood from the arm, and the patient had better be kept on low diet for some days. Fits have sometimes been caused by impure air, and can only, in such cases, be relieved by a removal to a purer atmosphere. This is a fact which it may be of service to bear in mind.

There are several other species of convulsions which attack young persons, and we shall notice them in their proper places, under the heads of Epilepsy, Apoplexy, St. Vitu's Dance, and Hysteria.

CROUP.

(*Cynanche Trachealis.*)

The Croup is a disease that mostly attacks children. They are suddenly seized with a difficulty of breathing, and a crouping noise. It is an inflammation of the mucous membrane, or covering of the inside of the wind-pipe, which induces a secretion of

very tenacious coagulable lymph; this lines the wind-pipe and the adjoining parts so as to impede breathing. The croup does not appear to be contagious, but it sometimes prevails epidemically. It seems peculiar to some families; and a child having once been attacked, is very liable to its returns. It is likewise peculiar to young children, and has seldom been known to attack a person after the middle period of life.

The application of cold seems to be the general cause which produces this disorder, and therefore we often meet with it in the winter and spring.

Some days previous to an attack of the disease, the child appears drowsy, inactive, and fretful; the eyes are somewhat suffused and heavy; and there is a croup, which, from the first, has a peculiar shrill sound; this, in the course of two days, becomes more violent and troublesome, and likewise more shrill. Every fit of coughing agitates the patient very much; the face is flushed and swollen, the eyes are protuberant, a general tremor takes place, and there is a kind of convulsive endeavor to renew respiration at the close of the fit. There is not only an unusual sound produced by the cough, (something between the yelping and barking of a young dog,) but respiration is performed with a hissing noise, as if the wind-pipe was closed up by some light, spongy substance. The cough is generally dry, but if any thing is spit up, it has either a purulent appearance, or seems to consist of films resembling portions of a membrane.

In an advanced stage of the disease, respiration becomes more stridulous, and is performed with still greater difficulty,—being repeated at longer periods, and with greater exertion, until at last it ceases entirely.

Treatment.—From the nature of this disease, blood-letting has been with some physicians a favorite remedy; but I must say that I have seen very little benefit result from its use. There may be some cases where the child is so very strong and fat that it will be attended with benefit, but generally I fear it will be the reverse. I have had the misfortune of losing a brother and two sisters by this disease. They were attended by one of the best physicians in the State of Maryland, and were all bled from the arm as long as blood could be obtained from that part; after which

the largest vein in the neck was opened, all without the least benefit; which caused me, whilst engaged at my studies, to bestow considerable attention to the nature of the disease. Shortly after I commenced practice in this city, I was called to see a child that was laboring under croup; it was two years of age, fat and strong. The symptoms were such as indicated bleeding. I ordered it bled from the arm, and used other remedies, all without the least benefit, excepting to weaken the child. Since that time, which was in the year of 1832, I have depended principally upon other remedies,* with a success which has surpassed my expectations. Local bleeding with cups and leeches applied about the head, is often attended with the happiest results. But I do not wish to be understood as being opposed to general bleeding in all cases. In the commencement of the disease, detracting blood may be of great service; but it ought not to be employed late in the course of the complaint; nor even at an early period ought it to be repeated, if the symptoms do not speedily seem to yield to it from fear of producing too great debility, which would tend to disable their attempts to struggle or throw off the false membrane, which has attached itself to the wind-pipe. The remedies which I would recommend to be used by parents is the following, and it is necessary that they be well acquainted with them, so as to be enabled to use them freely; for it must be recollected that the disease often comes on suddenly, and generally in the night, and perhaps before a physician could be found, the patient might be past recovery. The tartar-emetica is an important remedy in the commencement of the disease, and may indeed be given in moderate doses through the whole course of a protracted case; but if given freely at the first onset of the disease, it will put a stop to it in a few minutes. I have frequently subdued severe cases, without the aid of any other medicine; and this can be given without any danger to the patient. The best way of administering it is to dissolve four grains in three table-spoonfuls of water; fifteen or twenty drops to be given to a child of three months old, every fifteen minutes, until vomiting is produced; at the same time a mus-

* Since writing the above, I have been informed that the excellent and experienced practitioner, Dr. James Hamilton, of Edinburgh, was extremely unwilling to bleed children freely in their diseases, from its subsequent debilitating effects; and in croup, in particular.

tard plaster may be applied to its throat, and kept there until the skin becomes red. I consider these simple remedies of so much importance, that I would advise every parent who has young children to keep them always at hand, and use them as soon as the least appearance of the disease takes place, as there is not the least doubt in my mind but at least nineteen cases of the disease out of twenty might be removed in two or three hours.

Blisters applied to the back of the neck or breast, in strong children, is useful, and should not be neglected. The warm bath is also of service, but great care must be taken to prevent the patient's taking cold. Calomel has been considered a most powerful remedy in this disease by some physicians. I do not, however, recommend it to be given as it is, for the purpose of purging alone. It is astonishing how great a quantity of this drug is sometimes given in a short time, without affecting the bowels by purging—occasionally above 100 and often 50 or 60 grains, without the least benefit. I should suppose the remedy in this instance to be as dangerous as the complaint, notwithstanding the croup is one of the most fatal diseases to which children are subject.

But I think it my duty to state, that in some cases in which I have used it moderately, no alleviation has been obtained by any other remedy but the calomel, and in others it was trusted to alone, and with success. To an infant six months old, a grain of calomel may be given every six hours with three or four of rhubarb, until it purges freely; to a child a year old, two grains and to one of two years, sometimes even four grains may be given every six hours with the rhubarb, until the bowels are acted on, and the child purged freely. The stools are generally green in colour and their discharge is accompanied with an alleviation of the symptoms. When this is observed, the calomel must be discontinued. A very eminent physician formerly of this city, in speaking of the use of calomel in this disease, says

“The peculiar advantages which appear to me to belong to this practice, are the protracted and great degree of nausea which the calomel produces, an effect which has a powerful antiphlogistic tendency, and the alvine evacuations which almost always speedily ensue. Besides those effects, great benefit may be expected from the early constitutional influence of the calo-

mel, an influence which in the present disease, especially, is very generally acknowledged to be highly salutary. Be this as it may however, universal experience decides in favour of the great utility of emetics in this disease. Tart. antim. (the common tartar emetic which I have spoken of above) ipecacuanha, sulph. zinci, squills, sulph. cupri, have all been used and recommended in this affection, and where the object is merely the expulsion of the bronchial mucous or pseudo membranous matter, (the false membrane which forms on the wind pipe) any of these articles may answer our purpose. In some instances where the accumulation of the tenacious secretion is very rapid, it becomes necessary to repeat the emetic three, four, or five times in the course of twenty-four hours."

I have used the following mixture with success in the advanced stages when the skin becomes cold and bathed with profuse perspiration, and the pulse weak and soft. Half an ounce of snake root to a half pint of boiling water suffered to simmer for 15 or 20 minutes,* syrup of ipecacuanha one drachm,† honey of squill three drachms,‡ tartar emetic two grains,§ mixed and give a teaspoon full to a child of one year old every fifteen minutes, until vomiting is produced.

Concomitantly with the preceding remediate measures external applications ought to be employed, such as mustard plasters or the spirits of turpentine. But as the disease becomes complicated at this stage the assistance of a physician becomes indispensable. Another species of this disease will be noticed under the head of asthma.

JAUNDICE OF CHILDREN.

(*Icterus Infantum.*)

The jaundice of infants is a disease attended with great danger, at the commencement the child becomes fretful and sleeps very little; in a short time the skin becomes of a deep yellow col-

* *Infus. Polygala.* ℞vi,

† *Syr. p Ipecac.* ℞i.

‡ *Oxymel Scillæ* ℞iii.

§ *Antimon. Tart.gr.* ii.

our which extends to the eyes. It will not take its nourishment, has occasionally a difficulty in swallowing, is languid, becomes emaciated, moans much, is troubled with flatulency, sometimes with cough and phlegm in the wind-pipe, colic, convulsions or vomiting, and fever, occasionally supervenes. In some cases the liver is felt enlarged and gives pain when pressed gently. The water is very high coloured and the evacuations from the bowels are of a clay colour, which indicate a deficiency of bile.

Treatment.—I have found the early use of calomel of the greatest importance in this complaint, but before proceeding further, I would take the liberty of warning parents of the danger of making too free with this medicine. It has often appeared to me that calomel is administered without much attention being paid to its effects in the diseases of children. I am acquainted with the practice of some practitioners who rely almost wholly upon this drug in most affections which young children are liable, and it has become so common that parents and nurses will administer it without hesitation in all cases of sickness, which appears to me highly objectionable, and likely to lead, in some cases to fatal results. I shall state simply the effects which I have observed calomel produce on the evacuations when administered in repeated doses, either alone or in combination with other purgative medicines.

Children until they arrive at two or three years of age, are very subject to attacks of disorder of the bowels, attended with green and slimy stools, and symptoms of general febrile affections. With the exception of the eruptive diseases, croup, and a few more inflammatory affections, green and slimy stools, accompanied with symptoms of general fever, may be said to form the most common character of the diseases affecting children at this period. The colour and consistency of the evacuations in these cases, are generally supposed to depend upon a superabundance of bile, or upon some morbid change in the quality of that fluid, and calomel is given with the view of correcting the action of the liver. Supposing the bile is secreted in too great a quantity from the liver, it does not appear to me that the principal upon which calomel is administered, with the view of changing or stopping the morbid excretions is well founded. If it be the principal upon which mer-

cury is given when the bile is deficient must be incorrect, for the same medicine cannot be supposed to produce effects so opposite. When the stools are of a clay colour, as we have already stated to be the case in the present disease, which is supposed to be owing to the secretion of bile being deficient, a few grains of calomel will generally change them to a dark or green colour, which is proof that mercury tends to increase the secretions of bile from the liver; but this being the case, (and no physician who understands his business will deny it) upon what principal is it administered when the secretions is already too great. Calomel purges are often given by parents and injudicious practitioners for the purpose of clearing out those excretions and these are repeated daily, or sometimes hourly, under the supposition that as long as any portion of the green substance remains behind, irritation of the bowels will be kept up, and a return to health prevented. This is an erroneous view, and I feel satisfied that the intestinal irritation, as well as the unhealthy appearance of the evacuations is often kept up by such a practice, and that it sometimes leads to serious consequences by increasing the general fever and by producing so much nervous irritation as to bring on convulsions and often death.

But I may be asked by some fond parent, if there is no criterion by which they are to judge when to stop the use of calomel, I should say its use ought to be dispensed with altogether in the common gastric complaints of children. I believe, upon the whole, more harm than good results from its use. But I admit that in acute inflammation, this remedy is the most valuable we possess, and that in such cases, its effects on the bowels ought to be, in some measure, disregarded; as a more important disease requires to be subdued. But those are affections very different from those accidental attacks of general fever and disorder of the bowels, to which children otherwise healthy are subject. We might ask, what is to be expected from mercury when given as a purge, more than from other purgative medicines, such as rhubarb, magnesia, or manna? But admitting that the intestines are more effectually cleared out when a few grains of calomel are combined with another aperient remedy, it appears to me quite unnecessary to repeat it so often as some practitioners are in the habit of doing.

There is not the least doubt in my mind, but one half of the deaths of children in this city proceed from the improper use of this drug, given in some form or other. There is not one quack preparation used but what contain large portions of it, and administered to children by their parents in the popular form of vermifuge, hive syrup, cough drops, and a hundred other specifics for different diseases, medicines which ought not to be used for any other purpose than to destroy vermin. They are what cause the weak constitutions and incurable diseases which we hear so much of.

We have stated above, that the early use of calomel would appear to be the most proper medicine in Jaundice of children. It ought to be given in very small doses, say one grain divided into eight parts, and one part given every two hours with a small quantity of fine sugar, until the evacuations become of a dark appearance, then it is to be discontinued, and gentle purgatives given. The rhubarb in powder in doses of two or three grains is the best, unless the child's breath smells sour, when the calcined magnesia may be used. The strength must be supported by the breast milk given with the spoon if the child will not nurse, and small doses of white wine whey may be given with advantage, or the sweet spirits of nitre will answer well for the purpose of strengthening the stomach, given in doses of fifteen drops every three or four hours. The mother must pay great attention to her health, and be particular about her diet, for carelessness in this particular is often the cause of complaints. There are other species of this disorder which we shall have occasion to notice hereafter, they all require much the same kind of remedies.

VOMITING.

Vomiting is not a common disease of infants, I mean when considered as a disease. It is generally the symptom of some other complaint, such as dropsy of the brain. Neither are infants disposed to vomit often, unless the stomach is overloaded, the food, it then usually throws off as soon as taken, and appears unchanged. Nor is this to be considered as a disease, or as calling for a remedy. This kind of puking is not attended with any

violence to the stomach; nay, it is common to some of the finest children. But if the food remains on the stomach an hour or two, and be thrown off with sickness, it will then be proper to attend to it.

In this case a gentle purgative may be given, either rhubarb or magnesia, if there is an appearance of acid on the stomach, which may be known by the sour smell of the child's breath, a change of food for a milder kind is all that is generally necessary. When the vomiting is brought on by disease in some remote part of the body, it will be relieved by its removal, the symptoms of which will be described under the article of dropsy of the brain.

But a troublesome vomiting will sometimes arise in delicate children from too great a sensibility, or too great an irritability of the nerves of the stomach, which has been produced by previous bad management, generally by giving laudanum or other improper medicine.

For this species of the disease I would recommend some irritating application, such as mustard plasters to be applied over the region of the stomach, and suffered to remain until the skin becomes red. Small quantities of calomel and rhubarb may be of the greatest importance in cases where the bowels are irregular, half a grain of the former to three grains of the latter, given every three hours until the evacuations from the bowels become slightly green, but if the child should already have the bowel complaint, as very often happens, I would administer the rhubarb alone, after which the following mixture may be given: Prepared chalk, four drachms;* Laudanum, twenty drops;† Oil of Peppermint, two drops;‡ White Sugar, two drachms;§ Water, three ounces; || mix and shake ¶.

Of this a child of one month old may take a tea-spoonful every two hours, until the vomiting ceases.

* Creta ppt. ℥iv.

† Tinct. Thebiac. gut. xx.

‡ Ol. Mantha. gut. ii.

§ Sacch. alb. ℥ii.

|| Aq. font. ℥iii.

¶ M. S.

BOWEL COMPLAINT.

(Diarrhœa.)

By these terms we understand, a too frequent discharge of the feculent contents of the bowels without tenesmus. Under the article of vomiting it was observed that it was often a symptom of some other complaint, and then demanded a peculiar attention; and there is, perhaps, no disease which is more frequently produced by another, than the one under consideration.

Diarrhœa very often arises from unwholesome milk or other food, from a moist cold air, or from the sudden disappearance of some eruption on the skin.

The disease is not then hastily to be stopped, nor even absorbent powders to be given till the offensive matter be first carried off; and if vomiting attend, the cure should be commenced by administering an emetic. But though the purging ought not to be checked without previous evacuations, nor to be stopped hastily, yet it is not to be treated with a daily exhibition of purgative medicines, which serve to keep up the disease after the cause has been removed, by creating a continual irritation in the bowels. The diarrhœa, indeed, is a complaint often as difficult to cure as any to which infants are subject, and requires particular attention.

The general practice in the commencement of the complaint is to administer a sufficient dose or two of rhubarb, and afterwards absorbents; three grains of the former may be given to a child of a month old, and in ten or twelve hours after, the latter, in the form of the chalk mixture, may be given; two drachms mixed with water or new milk may be given in the course of twenty-four hours, if the complaint has not stopped before that length of time. If, however, the disease should continue, an emetic must be tried, as purgatives do not always lie long enough in the stomach to carry off the offensive matter it contains; after this it is often necessary to administer another purgative, and castor oil may be tried in doses of half a tea-spoonful for a child of the above age; they may be repeated daily for two or three days, when the complaint will be likely to begin to yield.

Should such repetition fail of success, though the diet has been

changed or otherwise attended to, the use of them must be omitted for the present, and recourse should again be had to the chalk mixture, and if there be no fever, light stimulants may be tried, and even opiates may be used with benefit, without the taking of which many bowel complaints will not admit of a permanent cure, on account of the irritability of infants. Opiates, however, are seldom required until children are two or three months old, and then they ought always to be the last remedy used by parents, and the greatest caution observed in their use.

But I cannot proceed here without incurring the painful task of cautioning parents or nurses against the too free use of preparations of opium in diseases of infants or children. I find that the practice in this city, especially among the poorer classes, is, when a child is taken with a bowel complaint of any kind, the nurse or servant is despatched to some drug store for something for the bowel complaint. The druggist, perhaps some foolish boy, will, without asking any questions concerning the age of the child, or the length of time which it has been ill, send a mixture to be given every hour, perhaps, let its effects be what they may, it is given, the complaint is stopped, but fever ensues. Inflammation of the stomach or intestines takes place, the child has severe pain and cries most pitifully; the dose is repeated again and again, it grows worse, the doctor is called in, and pronounces it incurable. If the nurse is asked what she has been administering, she will say a few drops of paregoric, or some such drug, when in fact she has been giving a mixture of rum and laudanum.

The mortality produced and the injury done to the constitutions of children by this practice is truly deplorable, and calls loudly for reform. If this treatment does not take the child's life at the time it is administered, it is certain to lay the foundation of a disease which will.

A like caution might be necessary in regard to stimulants of any kind, nevertheless, in many case, equally proper. There is a certain coldness and languor in infants when they are ill of this disease, and especially if they have been labouring under it for a length of time. I have found the following mixture to be very efficacious in this stage of the complaint: Powdered Gum

Arabic, two drachms; * Laudanum, thirty drops; † Oil of Cinamon, one drop and a half; ‡ White Sugar, three drachms; § Water, four ounces; || mix and shake. ¶ A tea-spoonful of this may be given every four hours until the purging ceases.

Together with the above remedies, the warm bath may be used, especially if the skin becomes very dry; also, if there appears to be pain on pressure over the region of the bowels, irritating applications may be applied.

For further information see the diseases described under the heads of Worms and Dysentery.

EMACIATION.

(*Marasmus*.)

Marasmus is a very common disease of children, but principally confined to those of cities. It begins with lassitude and debility, depraved or loss of appetite, fetid breath and tumid belly, pale leucophlegmatic countenance, with swelling of the upper lip; after this state of things continues for a time, fever supervenes, the countenance becomes at times flushed, and the skin hot and dry, with frequent pulse, thirst, restlessness, pinching of the nose, and disturbed sleep, in which the patient grinds his teeth and starts. The debility gradually increases, and if relief be not procured, death, preceded by great emaciation, takes place. This disease most frequently attacks those children who are fed on improper food, or taken injurious medicines, and those who have the digestive organs impaired by confinement, bad air, &c. The disease is very often mistaken for worms, or some other complaint, and improper remedies made use of.

Treatment.—This disease may, in the commencement, and before the appearance of fever, be arrested by a moderate course of calomel and mild purgatives. It will be proper to give a child

* Pulv. G. Arab. ℥ii.
 † Tinct. Thebaic. gut. xxx.
 ‡ Ol. Cinnam. gut. jss.
 § Sacch. alb. ℥iii.
 || Aq. font. ℥iv.
 ¶ M. S.

of six months old, the fourth of a grain every night for a week or ten days, after which small quantities of rhubarb may be given frequently, with the view of regulating the bowels.

Whilst this course is conducting, the strength is to be supported by proper diet and the prudent use of tonics; the sulphate of quinine may be used in powder, which is the most convenient way of using it. As children are not fond of any thing that is bitter, their grains may be mixed with a small quantity of sugar, and divided into three parts, one to be given every night. The spirit of nitre, also, will be of use, especially if there should be fever; cold salt bathing is also very good. After recovery has taken place, it will be proper to preserve an open state of the bowels, which will prevent a relapse.

This complaint is the cause of a species of fever, which we shall hereafter consider.

WORMS.

This being a disease of the bowels, I have noticed it in this place, especially as worms have been known to exist in children of all ages; it is even reported by some writers that they have been found in the still-born *fetus*. Worms, however, are much oftener suspected to be the cause of children's complaints, than positively ascertained to be; a mere fullness of the bowels, produced by indigestible or improper articles of food, will create all the symptoms attributed to worms. Some infants continue very healthy, though they are seldom free from them, whilst others are very ill who have apparently very few.

Species of intestinal Worms.—There are a variety of species of worms described by authors, but I shall notice but five, as they all require much the same treatment.

1. The *tricocephalus dispar*, or the long thread worm, is from an inch to an inch and a half long; about one-third of its length is as thin as a horse-hair, the remaining and back part being considerable thicker, terminating in a round or blunt end.

2. *Ascaris vermicularis*, or thread worm, is very small, not being more than an inch in length. These worms are found only

in the lower part of the bowels ; they are often collected in great numbers.

3. *Ascaris lumbricoides*, or long round worm. These are from four to ten inches in length, round, of a brownish red colour, of nearly one thickness, except at the extreme parts where they taper to a point. These worms inhabit the small intestines, and occasionally ascend into the stomach.

4. *Tania lata*, or tape-worm. This species often acquire a very great length, sometimes forty feet ; it inhabits the upper portion of the bowels and stomach.

5. *Tania soleum*.—This is another species of the tape-worm, it is generally passed off in pieces resembling the seeds of a gourd. This is the most common species of tape-worm, and like the former inhabits the stomach and small intestines.

Symptoms.—The symptoms of worms are various, and many of them are equivocal. I shall name only the most constant and less uncertain. Such are fetid breath, especially in the morning ; swollen or a spongy condition of the gums ; itching of the nose and of the lower portion of the bowels : a very irregular appetite, always in extremes, whether of hunger or of loathing a large hard abdomen ; pains in the stomach and bowels ; sometimes vomiting, oftener costiveness or purging with slimy evacuations ; colics ; thirst ; peculiar, unhealthy and bloated countenance, with a dark sallow circle round the eyes ; starting in sleep, and grinding of the teeth. To these symptoms are often added a slow fever, with a small and irregular pulse, pale and whitish urine, a short and dry cough, (which is an almost constant symptom where the complaint is of long standing, and has injured the health,) sometimes even convulsions, and partial paralysis of the lower extremities. Persons of weak constitutions are most liable to be troubled with worms. The cause of children being more liable to them, has been ascribed to many circumstances, such as the great moisture of the stomach and bowels ; the eggs of insects, which floating in the air or swallowed with the food, such as fruit. It is my opinion that they were designed by nature to be generated, and to live in the bowels for the purpose of producing a healthy action there ; and they are found in and voided by the most healthy children without having received any injury from

them. But the cause of them being produced in two great numbers for the purpose of benefiting the individual or child, is the improper articles of food and drink that are given them, which has a tendency of relaxing the bowels and creating such an unnatural action of them as to produce an unnatural or unnecessary number of them. In fact, it is my confirmed opinion, that if proper care was taken of children, they would not be destroyed by worms.

Treatment.—In prescribing for the removal or destruction of worms, it is of the greatest importance to confine the child to a spare and liquid diet, and to exhibit two or three mild purgatives a few days previous to the exhibition of the proper remedies.

With these preparatory measures, the remedies will not disappoint us so often as without them. The proper plan of management for the expulsion of the long round worm, is to put the patient on a liquid diet, and to order him a small dose of epsom salts or magnesia, every morning for three or four days. On the third evening give a dose of the decoction of the root of spegelia,* in the proportion of an ounce of the root to a pint of water, boiled down to half a pint. This being sweetened, is to be drank in the course of the day and night by a child of five or six months old. As soon as the whole of the decoction is taken, an active dose of calomel, say three grains mixed with ten of rhubarb, may be given at once, or a tea-spoonful of castor oil with ten drops of the oil of turpentine, if the patient should dislike the taste of the decoction, of pink root; or if he is young and weak, it may be mixed with milk well sweetened, and given in doses corresponding to the age of the patient. I have seldom known this remedy to fail in destroying this species of worms, either by expelling them or destroying them in the bowels.

A vast number of remedies and modes of treatment have been recommended, among which is calomel; but there is great danger in giving that drug in the way in which it would have to be given to be of use. I would add, also, in this place, that all those remedies which are advertised by quacks, or doctors who must be more destitute of common sense or principles, are composed

* Carolina pink root.

of mercury in its most destructive form, and notwithstanding they do not always produce salivation and death, they destroy the tone of the constitution, and lay the foundation for diseases in after life, more to be dreaded than death itself. I have seen several children lately salivated and destroyed by a famous panacea, prepared and sold in this city with impunity, and I have also known it to be recommended to parents by their physicians; but there is nothing more certain, than if a physician will order quack preparations which he can have no knowledge of, that he is destitute of the necessary qualifications for a physician; and I would advise parents and others who may have a physician who will order or recommend such articles, to get rid of him as soon as possible, if they have any regard for their children's welfare.

To prevent the re-production of worms after they have been expelled or destroyed, recourse must be had to tonics, particularly chalybeates in conjunction with minute portions of aloes, and a plain and abstemious diet which should always contain a proper quantity of salt. This article has appeared to be not only very valuable as a preventative, but particularly also to remove that debility and disordered state of the stomach and bowels which favour the production of worms. I would impress this upon the minds of nurses, for as far as I have been able to ascertain, they do not mix the young children's food with salt.

Ascariæ. These little white worms are extremely annoying. During the day they seldom give rise to much inconvenience; but in the evening, and particularly soon after lying down, they usually occasion a very distressing, and indeed an almost insupportable itching and titillation in the lower part of the rectum or bowels. So distressing is the sensation which they cause in those parts, that delicate children are sometimes thrown into convulsions by it. They are generally most troublesome during damp weather.

The removal of this species of worms is often attended with great difficulty, for although the inconveniency which they create may be removed for a time, they almost always recur again and again in those who are once infested with them. From the location of these worms being in the lower part of the bowels, little or no advantage can be obtained from the use of medicines ad-

ministered by the mouth, and even active purgatives seldom evacuate them sufficiently. Aloes, however, from its decided tendency to act on the lower portion of the intestines, will often expel them in great quantities, particularly when assisted with proper enemata. The best mode of proceeding for the expulsion of these troublesome little worms, is to prescribe three or four aloetic purgatives every second day, together with one or two enemata composed of a mixture of the following articles: Take of the tincture of aloes one tea-spoonful; oil of turpentine half a tea-spoonful; water, half a pint; common starch, as much as will give the mixture some consistency. This will be sufficient for two injections for a child of one year old. The powdered aloes may be given in half grain doses to a child of the above age, in a small quantity of molasses.

I have used the flowers of sulphur with great success in destroying these worms. It ought to be given in the morning on an empty stomach with molasses; one-fourth of a tea-spoonful may be given to a child of one year.

Tape worm. For the expulsion of the tape worm a great variety of remedies and modes of treatment have been recommended. But as children are seldom troubled with it, and if they were, the skill of a physician would be required, I will say nothing particularly about its treatment. I will, however, relate a case or two where I have been successful in the expulsion in adults, which may be of some importance to the reader.

Case 1. July the 20th, 1838, I was requested to visit a young girl seven years of age. By the account which I got from her parents, her health had been defective during the last eighteen months, and had been supposed to have disease of the spine, and treated for that complaint very improperly by applying large plasters of common flies to her back, which caused her to be much worse; and at the time I saw her first, her skin was hot and dry, her pulse small and rapid. She had constant thirst, impaired appetite, head-ache, occasional hiccup, hoarse, frequent cough and muscular spasms. Sometimes she vomits her food; her bowels are often constipated, often morbidly free, and often griped. A sense of coldness pervades her abdomen, particularly its umbilical region. It is distended and irritable under pressure; often-

times she starts in great alarm from an unrefreshing and disturbed sleep, and utters piercing shrieks. While asleep, her under lip is intermittingly agitated by tremulous motions. An evanescent blush plays upon her cheeks; her eyes have a characteristic wildness of expression; its sclerotic tissue is partly white and glossy; its pupil languidly contractible; her whole physiognomy indeed is indicative of disease originating from excitement of the stomach and bowels.

I put this girl under a course of alterative evacuants,* which, in the space of one week, brought away great quantities of discoloured slimy matter, with the effect of relaxing the abdominal tension, and mitigating the abdominal pain. In other respects her symptoms underwent but little change. The same remedies were continued during another week, with the addition of the warm bath every second evening. Their operation at the same time was assisted with friction, with a coarse towel rung out of salt water. This treatment effected the dislodgment of much sordid fœcal matter, in which were found several detached pieces of tape-worm; but little improvement of the patient's health, however, had as yet become apparent. I now suspected the tape-worm as the chief source of all this young person's disorders, and for its expulsion the oil of turpentine was prescribed. In the first place, I ordered her to take one drachm of the oil of turpentine, mixed with one ounce of castor oil, and ten drops of laudanum, to be taken every day about ten o'clock, after having been immersed for fifteen minutes in a warm bath. The friction was also continued.

About two hours after taking the medicine, she required to be placed in bed by reason of intense head-ache, vertigo, and a disposition to vomit. She soon fell into a profound sleep, during which her body was covered with a profuse perspiration. On the following day, being more composed, her mother prepared a second mixture of the turpentine, castor oil, and laudanum. After taking this, the effects were not materially different from those produced by the first dose again supervened. The medicine, however, was with much difficulty retained, and free perspiration was re-estab-

* Blue Mass, two grains every day, and fifteen grains of rhubarb every other day.

lished; in the afternoon, a few grains of rhubarb was given, which soon began to operate. By this means great quantities of ropy offensive feces were expelled, and in one of the dejections was found a piece of tape-worm, measuring ten inches. Next day the same treatment was repeated with the most beneficial effects. In the course of three days, eighteen pieces of the worm were discharged from her bowels. In a few days she became much better, and by taking a small quantity of the oil of turpentine and castor oil every three or four days, together with some mild bitter tea and a nourishing diet, she soon became perfectly healthy.

Case 2. January the 16th, 1838, Robert G——, a lad in his sixteenth year, had been sick for several days confined to his bed, and supposed to have disease of the spine. He had been blistered and cupped along the back without any relief. When I saw him the first time, his disease displayed the symptoms of inflammatory fever. There was pain in the head and in the course of the spinal column, and in the lower extremities; great thirst, sickness of the stomach, and constipated bowels; dry mouth, furred tongue, hot skin; pulse strong and accelerated, abdomen tumefied and painful to pressure; eye suffused and glossy, with dilated pupil and great impations of light. I ordered sixteen ounces of blood to be taken from his arm, and a strong dose of calomel and jalap, to be taken the next morning. The symptoms were aggravated, during the night the patient was hot, irritable, and unable to sleep. He had three scanty liquid stools, and was much distressed with tenesmus and head-ache. At three different times, imperfect convulsions supervened, and these were preceded by grinding of the teeth, muscular spasms, flushing of the face, muttering, moaning, and horror. Reflection of the assemblage of morbid signs induced me now to ascribe to the fever a sympathetic character, and to refer its developments to the cause of nervous irritation, produced by worms in the stomach and bowels.

I accordingly administered medicine for the purpose of destroying worms, and in the first place, ordered half an ounce of oil of turpentine in about one gill of sweetened milk, and in about six hours after two drachms of the former medicine mixed with one

ounce of castor oil. In three hours after, the patient began to experience severe pain in the bowels, with giddiness and intellectual confusion, in a few hours after this he had a copious evacuation which was composed of a large number of round worms; the next day a larger number were ejected. I then ordered him an ounce of castor oil and fifteen drops of laudanum, which caused him to sleep without any of the former disagreeable symptoms; his fever soon subsided, and in a few days, by using of an occasional laxative, was restored to perfect health.

Remarks.—From the success which I have had in these and similar cases, I believe that the essential oil of turpentine possesses virtues capable of fulfilling the chief indications of treatment in diseases originating from the presence of worms in the stomach or bowels. And notwithstanding there is often unpleasant symptoms produced by it, if the proper preparatory means are made use of, the danger is in a great measure removed; for this purpose my experience enables me to prefer the use of preparatory and consecutive evacuations. For instance, I would recommend in the first place to give twenty or thirty grains of rhubarb with three or four of calomel: after this has exerted its influence on the bowels, I would administer from two drachms to half an ounce of the oil of turpentine, mixed with half a pint of sweetened milk, and in three hours after an ounce of castor oil and fifteen drops of laudanum. The last mentioned medicine will prevent the turpentine from exerting its influence too severely upon the nervous system.

I would not recommend individuals to use the above remedies in young and delicate subjects; it may, however, be exhibited by injections without danger. In this form it is less efficacious; it acts, however, with more energy in this way, on that kind of worms which infect the lower portion of the intestinal tube, and fortunately young persons are seldom troubled with any other species of worms. There is often a weak and debilitated condition of the bowels in young persons which produce almost the same symptoms as those which are produced by worms. If this state of things should exist, an appropriate exhibition of this oil will be found materially beneficial in promoting that kind of reaction in the parts, where nature has failed in overcoming the cause

from which the disturbance of their health may have originated; and, in fact, there is no remedy that can be used with less danger in doubtful cases of the disease in adults.

Instructed by this view of the beneficial properties of the oil of turpentine, I am at present directing its employment in a most obstinate and protracted case of that disease, to which, with little apparent propriety, the name of *diarrhœa tubularis* has been applied. Hitherto, many favourable circumstances have combined to encourage the hope of my patients sufferings being, at least, considerably mitigated. Be the result of the experiments what they may, I shall have occasion to recommend it in other diseases which I intend treating of in this work. But notwithstanding I have spoken much of its praise here, I will have to say as much against it in cases where it has been used with the most injurious effects, and indeed I must say it is too often employed by some of our physicians in this city especially in diseases of delicate females.

CHOLERA OF INFANTS.

(*Cholera Infantum.*)

This is an extremely distressing and often fatal disease; it often occurs in the country, but much more frequently in the city; it appears during the summer and autumnal months, but more generally in the heat of summer, and in the city oftener in the month of July than at any other period; the cholera of infants differ in several essential points from the ordinary cholera of adults. It is almost always attended with fever; and very frequently commences in a gradual manner with more or less diarrhœa, often of several days continuance, before the vomiting commences. It is also particularly liable to become protracted in its duration, or to assume a chronic form, a circumstance which is not common in the other variety of this disease; the cause appears to depend upon some epidemic, or peculiar condition of the atmosphere of cities, and not on diet or teething, as has been supposed; for if this was not the case, it would be met with as often in the country as in large towns; these sources of irritation may

aggravate the disease when formed; and these, with any other course of general mismanagement, by weakening or otherwise impairing the health of the child, will cause it to be more liable to be acted on by such morbid atmospheric condition. The duration of this disease is exceedingly various. It may prove fatal in five or six hours, or continue for several weeks, and even months, until the body is reduced to a state of extreme emaciation, and yet terminate favourably.

Symptoms.—The most prominent in this disorder are great irritation of the stomach and bowels, and frequent dejections; the fever may either be remittent or intermittent; and in the early stage, of an acute attack; the pulse is frequent, full, and irritable. Soon, however, the fever changes its type; degenerating into a low typhus, with a small quick, slightly corded, and highly irritable pulse, which gradually loses its force and sinks; the little patient will exhibit symptoms of the most extreme agony, continually rolling or twisting its body about, and crying in the most pitiable manner. Another very common symptom, and I never knew it to be absent, is, the child will continually be putting its hand into its mouth, and appear to have a desire to push it down its throat. If the disease is not vanquished by proper remedial measures, the patient by degrees becomes somnolent; he sleeps with the eyes half open, rolls his head about when awake, and at last sinks into a state of insensibility.

Treatment.—The treatment of cholera infantum requires much consideration. In the commencement, if the fever is very severe, and the child strong, it may be proper to have an ounce or two of blood taken with leeches from about the head; but it is by no means always, or even generally, necessary; and the readiness with which the fever degenerates into typhus, should cause us to be particularly careful, and I believe it would be much safer not to take blood in any case, as it is generally children of delicate constitutions who are attacked. It will be proper, however, at the commencement of the disease, to give an emetic of ipecacuanha (and this ought to be given whether their is spontaneous vomiting or not) followed by a mercurial purge of three or four grains of calomel to be given at once, and in two or three hours five grains of rhubarb, if the calomel has not produced the de-

sired effect. After this, the bowels should be gently, but continually acted upon by such a combination of articles, as will, while they purge, have a soothing, narcotic and diaphoretic tendency. A useful prescription for this purpose may be formed of three or four grains of calomel with one of opium and sixteen of rhubarb, mixed, and divided into six powders, one of which may be taken every eight hours by a child of one year old. When the irritation of the bowels are very acute, the following mixture may be of importance for the purpose of soothing; prescription, pulverized rhubarb, twenty grains,* calcine magnesia, forty grains,† tincture opium, thirty drops,‡ oil of aniseed ten or twenty drops,§ white sugar, half an ounce,|| lime water, three ounces;¶ mix and shake.** One tea-spoonful to be given every hour.

Blisters have been thought proper in this disease applied to the abdomen and extremities; but I consider them altogether improper, as they are certain almost to produce mortification. I would, however, recommend mustard plasters to be applied to the extremities, and about the neck, and let them remain on the part until redness of the skin is produced. The warm bath, fomentations over the region of the stomach and bowels are also beneficial. Whenever it is practicable, the child should be removed to the free and pure air of the country; but when this cannot be done, he is to be placed on a pillow on horseback once or twice in the day, and carried a short distance out of the city; or he may be removed as often in a boat; there is something in the fresh air from the water, very reviving to such patients; the diet should be light, such as chicken water with rice well boiled. Thirst is a very general attendant on the disease, and the drink ought to be gum arabic water sweetened with sugar.

In chronic cases, or cases of long standing, the child's appetite sometimes suddenly begins to crave urgently for certain strong

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* Pulv. rhei. gr. xx.

† Calc. Mag. gr. xl.

‡ Tinct. opii. gts. xxx.

§ Ol. anisi. gts. x.

|| Sacch. alb. ℥ss.

¶ Aq. calces. ℥iij.

** M. S.

and stimulating articles of food, such as salted herring or shad; old bacon salted, and smoked beef; whilst the stomach loaths all of the lighter and unirritating articles of nourishment.

When this occurs, it will be proper, cautiously however, to gratify the newly awakened appetite, however opposed to the ordinary dietetic rules the indulgence may appear to be.

HOOPING-COUGH.

(*Pertussis.*)

Children are most commonly the subjects of this disease, and it seems to depend on a specific contagion which affects them but once in their lives. The disease being once produced, the fits of coughing are often repeated without any evident cause; but in many cases, the contagion may be considered as only giving the predisposition, and the frequency of the fits may depend upon various existing causes, such as violent exercise, a full meal, food of difficult digestion, and irritation of the lungs by dust, smoke, or disagreeable odours.

The hooping-cough often begins like a common cold, the child coughing frequently, and having more or less fever. In some cases the fever is slight, going off in the course of a week; in others very severe and long continued, attended with great oppression or sickness, and want of appetite. The cough generally comes on very abruptly, and is sometimes very early attended with that sonorous spasmodic inspiration, denominated hooping; in other cases not for a considerable time; and this is considered as a favourable circumstance, but it is not always so, for in young children, death may take place, although the disease never fully forms. When the cough becomes formed, the paroxysm consists of a number of short expirations closely followed in each other; so as to produce a feeling of suffocation, relieved at last for an instant by a violent, full, and noisy inspiration; then, in general, the cough or spasmodic expiration recommences, and the paroxysm, consisting of those two parts, continues until a quantity of phlegm is coughed up or vomited alone or with the contents of the stomach, and this ends the paroxysm. The extremities become cold during the fits, and the whole frame

is very much agitated. Those paroxysms vary in frequency and duration. Sometimes they are light, at other times they are attended with a most painful sensation, the face becomes turgid and purple, and the blood gushes from the nose or other parts.

Whooping-cough is very dangerous for infants, as they often die suddenly in a fit of suffocation; older children escape more easily, though even they are sometimes carried off; the fever continues, or anasarca coming on with exhaustion, the lungs become diseased, and hectic fever takes place; convulsions may also supervene and carry off the child.

Treatment.—Many eminent physicians recommend antimony as the most proper and only remedy for this as well as for almost every other complaint of infants. But I think, good as the antimony is, many other means are equally useful, and not unfrequently indispensably necessary, unless we should suffer the patient to be strangled in a fit of coughing, or fall into a decline, from the injury which the lungs must sustain by a frequent repetition of such violence.

This must be apparent from the above history of the disease, the various symptoms of which, certainly demand a considerable diversity of treatment.

The disease indeed, very frequently requires no other medicine than such as keep the bowels open, which ought always to be done, but not to such a degree as to weaken the patient. For this purpose I have been in the habit of using the tartar emetic; it has an advantage over every other medicine, when we are prescribing for children, on account of its being tasteless. Four grains of this in two ounces of water, with the addition of a little sugar, is a medicine to which children will never object taking; one tea-spoonful given to a child of a year old will, in general, act sufficiently; and may be given upon an empty stomach every day, or every other day, according to the strength of the child. If the cough should happen to be more violent at any particular time, the emetic should be given a little before the paroxysm is expected.

Such a plan is all that will be necessary in the common whooping-cough. But I have said, there were cases which require other means, and demand all the skill of a physician. The cough

for instance, will sometimes increase not only for days, but for weeks together, and the strangulation be exceedingly alarming. In this case the milk of gum ammoniacum, but especially assafœtida, frequently proves a very good remedy, and though extremely nauseous, many children will take it; and when they will not, it may be administered by way of clyster.

If the breathing be difficult, a blister is indicated, which, if the child is one year old or upwards, may be kept open for two or three weeks. If the face should be very livid and swollen, during the fits of coughing, or if the patient be fat, strong, and feverish, a little blood ought to be taken away, and a small quantity of the sweet spirit of nitre be given every hour until the fever is checked; but if none of these symptoms attend, bleeding will not in general, be indicated.

The above remedies, however, would be improper in the advanced stage of the disease. When the patient has been exhausted by its long continuance, and hectic fever has taken place, or hemorrhage, and other phthisical symptoms, (a caution equally necessary in regard to the remedies we now intend mentioning, in the absence of those symptoms,) strengthening remedies become proper; for this purpose we would recommend quinine and opium in small quantities, say five grains of the former and two of the latter mixed and divided into eight parts, one to be given to a child of a year old every night, which will be found to relieve the cough in some measure, and strengthen the patient. Much benefit may also be obtained by a change of air and milk diet, and at the same time the bowels must be kept open, with small quantities of rhubarb.

If convulsions come on, we must apply a small blister to the back of the neck and use warm-bathing.

COLD OR CATARRH.

Infants are subject to catarrh, either common or epidemic. It is attended with fever and inquietude, flushing of the cheeks, watery discharges from the eyes and nostrils, disposition to sleep, frequent and irregular pulse, panting and difficulty of breathing, with frequent cough, which is sometimes severe, and resembles

hooping-cough, and gives rise to the groundless fear that the infant is going to take that disease. It generally goes off in a few weeks, by the use of gentle purges of castor oil; or if the cough is troublesome, five drops of the tincture of hyosciamus* may be given in the evening; if the fever is severe half a tea-spoonful of the sweet spirits of nitre will be proper, and flannel is to be worn round the throat.

DROPSY OF THE BRAIN.

(*Hydrocephalus.*)

Dropsy of the brain is a preternatural collection of serous or watery fluid. It may be situated between the skull and *dura mater*; immediately beneath the *dura mater*; beneath the *pia mater*; in the ventricles; or in the substance of the brain.—The symptoms in all these cases are similar.

The attack of this disease is often very sudden, but more frequently begins with the appearance of slow fever, especially in children of two or three years of age, with debility of the arms and pains in the limbs, especially the upper part of the neck. After some time, the child is suddenly seized with pain in the fore part of the head, and vomiting. It becomes heavy and dull, can bear no position but that of lying horizontally; the pulse becomes irregular, but usually very slow. In the progress of the disease the faculties and senses are impaired, and the eyes are not able to bear the light. As the disease advances, the pulse grows frequent, the cheeks become flushed, the pupils of the eyes are dilated, the evacuations of the bowels pass away involuntarily, and the patient lies sleeping, or is convulsed. The symptoms indicative of the complaint in young children or infants, are, a hand often put to the head, or lifted upwards, and waving about; continual vomiting, costiveness, expression of anxiety, and dislike to be moved; at other times an unmeaning look, and marks of insensibility; the fingers often clenched, and hands tumid; drowsiness; the eyes in some cases impatient of light, in others vision is so impaired, that the child does not regard any object, however close to it. The pupils are not dilated till near the close of

* Henbane.

the disease, and patients often hear and comprehend, and take food to the last, and die suddenly upon the decline of the febrile symptoms, when they have been thought to be recovering. These and other symptoms, however, described as indications of water in the brain, are, in some degree, common to other diseases of children, especially the dilatation of the pupil and sleepiness.

Hydrocephalus is produced by causes, the operation of which cannot always be detected, but sometimes it can be traced to the sudden removal of an eruption, or cutaneous discharge from the scalp, blows on the head, &c.

Treatment.—Practitioners seem chiefly to have depended upon repeated bleedings, purges with jalap or calomel, and blisters to the head and neck.

The most proper treatment, or at least that which I have found most effectual, is the early application of leeches to the temples, and purging the patient with common salts, which will, in some degree, relieve the incessant vomiting which attends the disease. In cases of young children; one tea-spoonful of salts dissolved in a wine-glassful of water, and one table-spoonful given to a child of six months old every hour, until free purging is produced, and the fever checked in some degree, or the patient very much reduced in strength, at the same time a blistering plaster may be applied to the back part of the neck, and kept discharging; after the patient is weakened very much, applications of mustard ought to be applied to the extremities.

These means should always be had recourse to on the very first attack of the febrile state, and in many cases will effectually check the progress of the disease, and prevent effusion. Though I have said calomel had been recommended in this disease, I cannot say I have seen any good effects from its use. I do not doubt but it would answer as good a purpose as any other purgative, if it could be given with as much safety; but notwithstanding young children are much harder to salivate than grown persons, there would be very great danger in giving such quantities as would be required to purge in this disease generally, and if the mouth or gums were to become affected by its use, it would be certain death, and that in a more terrific form than from the disease itself; and on this account I shall not say anything on the

manner of exhibiting it in this complaint. A large bleeding early in this disease, in children of two or three years of age, where they are of a robust habit, I have found very beneficial. Two or three ounces may be taken with safety from the arm. Also, more powerful purgatives may be given children of this age and habit of body, such as jalap in five grain doses, in combination with one or two grains of calomel.

As for shaving and blistering the head, it is not likely that any regular bred and scientific physician would be so brutal as to apply it on an infant's head; and indeed I believe the practice is equally improper at all periods of life. I feel sorry in having to say, that I believe there are more deaths caused by applying blisters to that part of the body, than there are by the disease itself. I therefore would warn parents against the practice. A blistering plaster applied to the back of the neck, will always be found to have a much better effect, and that without the danger of producing the disease of the brain where it does not exist.

When hydrocephalus is known to be a family complaint, it will be proper to use every means to strengthen the constitution, such as the cold bath, light nourishing food, and strict attention to the bowels. If the child be plethoric, the bowels should be kept loose, and a small issue may be inserted in the neck. We should be particularly careful not to heal too suddenly any eruption, especially about the head. The first symptoms of the disease must be watched, and we had better be blamed for using remedies too early, than have to regret that we employed them too late.

FEVER.

Though some writers have supposed infants to be as liable to fevers as adults, and from the same causes, I have not found it to be so, having observed, for many years, that infants do not readily take common fevers, though exposed for a long time to that contagion which has appeared to affect adults around them.

Their fevers are also of a short duration, if properly treated, unless the few that arise from some more permanent irritating cause.

Young children, however, are disposed to some febrile complaints peculiar to themselves, which I shall bestow some attention in specifying, as well as pointing out the treatment most proper to be used in each.

The more frequent causes of fever, are teething, acidity of the stomach, worms, glandular affections, some eruptive diseases, or cold. If from the last mentioned cause, the fever will always be attended with cough, hoarseness, and some difficulty in breathing, and often with running at the nose or eyes, which will distinguish this species of fever from all others, excepting measles, which will be attended with violent sneezing, and a peculiar appearance of the eyes, not often met with in a common cold.

Treatment.—If the fever be considerable, the cough violent, and the difficulty of breathing very great, it will be proper to commence with tartar emetic, in such quantities as will produce vomiting; four grains to the ounce of cold water, one half of a tea-spoonful to be given every hour until the fever is subdued. If, however, the fever should not yield to this remedy after six or eight doses are given, it will be proper to apply a blistering plaster over the breast, the flies will be the best, as they are not so irritating as any other; it may be three inches square, and left on the part until it draws, but no longer; after it is removed, a warm poultice of bread and milk may be applied over the blistered part, which will, undoubtedly, remove the internal irritation; but if the child should be of a delicate habit, and under one year of age, I would recommend the application of a few leeches to the breast in place of the blistering plaster; it will also be proper to give purgative medicines if the bowels are confined, the common salts one tea-spoonful to the ounce of cold water may be given until purging is produced, after which a few drops of the sweet spirit of nitre may be given, from ten to fifteen drops every hour will be sufficient for a child of one year old.

If the fever is not owing to taking cold, worms, teething, or some eruptive disease, it will be likely to be found to arise from some foulness of the stomach or bowels, in which case purging, and afterwards giving a mild emetic, such as the ipecacuanha in doses of three grains to a child of one year, will usually remove it. But if not, opening medicines must be continued a while lon-

ger, especially castor-oil; but if the stools are of a light clay colour, small doses of calomel and rhubarb will be the best purgatives, though they require to be administered with caution. I have known not only convulsions but paralytic affections, attended with great pain and continual fever, produced merely, as I apprehended, by a foul state of the bowels; where after the complaint has been unsuccessfully treated as a fever of another kind, all the symptoms have been removed at once by an active purge. Even infants of only three or four months old will often have very considerable fever and fits, with so costive a state of the bowels, as to require strong purgative medicines to be repeated for several successive days, with clysters and the warm bath, before the obstruction can be removed, or the fever will at all abate. And it may be a matter of surprise to those who may not frequently have met with such cases, to find what a quantity of purging medicines have been taken by a tender infant, before one proper evacuation could be procured, and how certainly relief will take place, if the opening plan be persevered in. In less urgent cases, especially in very young children, much gentler means will usually succeed, and after the bowels have been once or more well opened, many common fevers will nearly subside; after which it will frequently be proper to use some of the absorbent powders in some form, and the following will be likely to answer. Take of Prepared chalk or oyster shells,* one drachm; Powdered Gum Arabic † and Loaf sugar, ‡ each one drachm; Oil of cinnamon, § one drop; Water, || three ounces; mix and shake; of this, one tea-spoonful may be given to a child every four hours, unless its bowels should become confined.

On the decline of some fevers, especially those arising from a foul stomach, it is not uncommon to see an eruption on the skin resembling that called the red gum (which we shall describe,) in

℞ * Cret. Prep. vel Test. ostreor. ʒi.

† Pulv. G. Arab. }
 ‡ Sacch. Alb. } aa ʒi.

§ Ol. Cinnam. gut j.

|| Aq. Font ʒiii.

M. S.

the mouth, and sometimes even the thrush will make its appearance, though the infant may have had that complaint already, which are marks of the great disturbance the stomach and bowels have suffered.

Fevers in children of four or five years old, are sometimes tedious of cure by any of the means we have mentioned above, and like those of adults, require the bark or quinine, which should be administered in a light decoction three or four times a day, in such doses as the symptoms require.

I have sometimes met with a fever more remarkable for its being attended with inflamed and painful tumors, than for any other symptom peculiar to it. These may be seated on any part of the body, but more generally are confined to the lower extremities; they rise in a day or two to the size of a nutmeg, and are marked with all the appearances of an abscess, feeling as if they contained matter; on this account they put on a formidable aspect to such as may not often have seen the disease. But what is most remarkable, they never, I believe, come to suppuration, but disappear again in a few days, though the fever sometimes continues. The like appearances have been met with in adults, and especially in females, but more commonly in children from three to ten years of age, and are not peculiar to scrofulous habits; they are connected more frequently with that fever which attends a foul stomach than with any other, which, therefore, requires purgatives with small quantities of calomel; rhubarb, five grains in combination with one grain of calomel once a day, during four or five days, will be found beneficial.

Another species of fever called *mesenteric* fever, which we promised to notice when describing the disease called *marasmus*, on page 38, is caused by diseased glands, especially the *mesenteric*, (from which it derives its name,) and is often a forerunner of the hectic fever. It frequently arises from scrofula, which then discovers itself by other marks, and will require its peculiar treatment. But there is an early stage of glanular obstruction in the *mesentery* and of the fever here alluded to, that is falsely attributed to worms, but will not yield to mere purgative medicines. It attacks children from the age of three to four years; the fever remitting and sometimes intermitting, irregularly, is attended

with loss of appetite; swollen stomach, and pain in the bowels; the latter more commonly taking place every day, or is generally more violent if the child be a day or two free from it. After the child has been freely purged with rhubarb, half a grain of calomel may be given to advantage two or three times a week, and on the intermediate days small doses of nitre may be given for the purpose of removing the fever; three drachms may be given to a child of a year old four times a day. When the fever has abated, some light bitters, such as the chamomile flowers is useful to brace the stomach and bowels.

Typhus fever is extremely rare in infants, but it sometimes is communicated to children a few years old. It is known by our evidently tracing the channel of infection. The child at first is languid, pale, chilly, and debilitated, it loses its appetite, the head becomes painful, the skin hot, the tongue foul, and the pulse very quick; and if a favourable crisis be not procured, great oppression succeeded by stupor precedes death. In the course of the disease, the bowels are generally bound, the stools fetid, and the urine thick. It requires the early use of emetics in the hot stage, succeeded by saline purges. If the hot stage, however, be fully established, and the heat is considerable, the cold effusion will be of advantage, succeeded by small doses of calomel with light diet, and the use of ripe fruits. If the head be very painful in the first stage, the application of leeches to the forehead will be proper. If the pain continues, or stupor and constant drowsiness supervene, blisters or mustard plasters may be applied to the extremities for the purpose of attracting the blood from the affected or congested organs. The strength in the decline of the disease, is to be supported by the prudent use of wine whey. If cough should attend the complaint, it will be proper to apply a small blistering plaster to the breast, and give small doses of squills.

The most frequent fever, however, excluding those accompanied with eruptions, is the fever from irritation, which, although it may proceed from various causes, is the same in its nature, and the indications of cure. It has been described under the name of the infantile remitting fever, though the fever so described belongs to childhood rather than infancy. I will there-

fore describe it by that variety which occurs in early infancy, and that which takes place at a more advanced age. With regard to the description of the first variety, it is very similar to the early stage of hydrocephalus, but the remissions are more distinct in the morning, and the exacerbations greater in the evening. The pulse is very quick, (in the early stage of hydrocephalus the pulse is more irregular, and often beats alternately quick and slow for two or three pulsations,) the skin hot, the mouth warmer than usual. The infant is at first fretful, restless, costive, and inclined to vomit; then he becomes more oppressed, perhaps; does not for hours lift his eyes till the emission comes, when he looks up and attends to the objects presented to him for a short time. He sucks in generally freely, and sometimes bites the nipple, and very often aphthæ appears in the mouth. The bowels are irregular, but whether the stools be frequent or seldom, they are generally green. The urine is usually high coloured and scanty, and sometimes the feet swell a little, and very often become cold.

A favourable change takes place, sometimes about the fifth day, sometimes later, the child looking up for a longer space of time than formerly, and seeming more free from sickness. After this, the symptoms subside, and the strength is gradually restored. It is very common to find, that at this time one or more teeth have made their appearance. In many cases this fever may proceed from affections of the bowels, but in general it is caused by teething, the irritation in the jaw operating either alone, or in combination with a morbid state of the stomach. In this kind of fever, the gums should be carefully inspected, and if necessary, cut. Small doses of calomel, the fourth of a grain mixed with half a tea-spoonful of magnesia, should be given morning and evening to prevent costiveness, or destroy acidity of the stomach. The tepid bath should be employed once a day when the fever abates, and the strength supported by the breast milk, or beef tea in small quantities. If the infant be strong, a leech should be applied to each pimple, and if a favourable crisis does not soon take place, a blistering plaster ought to be applied to the nape of the neck.

The remittent fever of older children is met with from the ages

of two to ten or twelve years, and is found to be produced either speedily after eating some improper substance which has not been immediately removed from the stomach or bowels, or gradually by the induction of a costive state, or the accumulation of irritating matter in the bowels. In the first case the fever attacks suddenly, generally at night, and the child is sick, very restless, extremely hot, disturbed in the sleep, and thirsty; sometimes he vomits or complains of pain in the bowels. The tongue is at this time tolerably clean. If this disease be attacked immediately with an emetic, followed in the morning with a smart purge, the health is soon restored; but if the remedies be delayed till the next day, I have generally found that although the emetic with purging mitigates the disease, it does not arrest it speedily; but notwithstanding the regular use of laxatives with diaphoretics, is continuous for two or three days. Emetics and purgatives in this disease generally bring off some half digested substances which have been taken several days previous to the attack.

In other cases the attack is often more gradual, the child being for several days somewhat feverish and unwell. The pulse is frequent, and in the course of the day he has several attacks of feverishness, during which he is dull and disposed to sleep, or lie down, but these do not last very long, and in the interval he seems tolerable well, but is easily put out of temper. The appetite is not steady, he has little thirst, and the tongue is clean. The bowels are sometimes very open, but oftener bound. These symptoms appear more or less distinctly for about a week, though sometimes not so long. Then an acute paroxysm of fever takes place, preceded by a chilly feeling, and attended generally by vomiting. The pulse becomes much more frequent, sometimes upwards of 100 in a minute. The cheeks are flushed, and the patient is very drowsy, but complains of little pain in the head. The fever does not continue alike severe during the whole of the day, it remits a little, but not at very regular hours. The exacerbation is generally accompanied with drowsiness. Very soon after the attack of fever the tongue becomes covered with a white or brown coat, and both the stomach and bowels seem to be extremely torpid. The appetite is soon lost, or the food which is taken is not digested. The bowels are generally, but not always

costive, and the stools are offensive, generally of a clay colour. There is a great desire to pick the nose and lips, and if the child is not watched, sometimes an ulcer is thus produced upon the lips or angle of the mouth.

The face is occasionally flushed, and the eyes suffused, or it is pale and the eyes dull and white. Generally, delirium occurs in the course of the disease, and in some cases it is difficult to keep the child in bed. From this state, however, he can usually be recalled for a few moments, and will then answer questions distinctly. In some instances convulsions have taken place. This disease runs on for a week or two, or even for several weeks, and may at last destroy the patient by debility, an event which will take place earlier if the proper remedies be not employed than if they be.

This fever bears a very considerable resemblance to dropsy of the brain, especially to the first stages of that disease. But in the latter disease there is a more frequent vomiting, and as often a tossing of the hands about the head. There is also pain of the head which is absent or trifling in this fever.

Treatment.—It is generally proper to begin the treatment of this disease on its first attack with an emetic, which is to be followed by a purgative. In some cases the usual dose of the purgative will prove effectual, but oftener a much larger quantity must be given. It is useful to evacuate the bowels freely at first, but after this it is not proper to give so much medicine as will purge briskly. It is requisite, however, to give regularly such doses as will keep the bowels open and support their action. When the stools are loose, purgatives are still proper in small doses to evacuate them, for they are not natural in their appearance, and injure the action of the intestines. Small doses of calomel, castor oil, or infusion of senna, will be found to answer the purpose.

This is a very important part of our practice, but not the whole of it, for we know well that removing the cause of fever does not always remove the fever itself. We should, therefore, besides using laxatives, employ in the early stage a little antimony, the eighth of one grain given every hour or two will be found to remove the fever. In the more advanced stage, support the strength

with wine whey, or small doses of opium, the eighth of a grain twice or thrice a day. Delirium is generally mitigated by the application of a blister on the back of the neck; washing the head with vinegar is also of use. The diet should be light, but it is not proper to force the patient to eat.

CUTANEOUS DISEASES.

In the following short account of cutaneous diseases, I may have committed some errors respecting the nature of eruptions. Nosological writers, unfortunately, do not agree in giving uniformly the same name to the same disease, and perhaps it is not always easy to give a perfect definition by words alone. I have, however, endeavoured to detail faithfully, so far as I was able, the symptoms characterizing the eruptions which I described, by whatever name they may be called, and also to point out the mode of treatment proper in each case.

CHILD'S SORE MOUTH.

(*Aphthæ Infantum.*)

This disease is so well known to parents and nurses, as scarcely to require a description. It generally appears first in the angle of the lips, and then on the tongue and inside of the cheeks, in the form of small white specks. These, increasing in number and size, run together more or less, according to the severity of the disease, and form a thin white crust, which at length lines the whole inside of the mouth, and often extends to the stomach and through the bowels, producing a redness about the anus. When the crust falls off, it is frequently succeeded by others which are not unfrequently of a dark appearance. But this happens only in the more malignant form of the disease, for there is a mild species that is spread thinly over the lips and tongue, which returns a number of times and generally lasts several weeks. I have seen this so often the case, that when I observe a child have the complaint very light, and that it does not increase after two

or three days, I venture to pronounce it will continue for a long time, but will be of little consequence. Care, however, ought to be taken that the child be not exposed to cold; it may be of use to wash its mouth once a day with lime water and milk, equal parts of each. In the more severe species of the disease, when the bowels are confined, purgatives will be proper; the best is the magnesias. If the bowels are in the other extreme, and the child is very weak, the eighth of a grain of opium in combination with six or eight grains of chalk, may be given in a small quantity of sweetened water once a day. But if the disease is attended with fever, and the eruption takes on a dark appearance, a grain or two of ipecacuanha, together with the fourth of a grain of calomel may be given every night until the ulcers take on a healthy appearance; after which a tea-spoonful of chamomile tea, or a few drops of the compound tincture of gentian, well diluted, may be given two or three times a day with advantage. In regard to applications to the part, it is necessary to observe, that as they have little to do in curing the complaint, it will be improper to have recourse to them very early. I know it is very common to commence the treatment with them, but they generally serve to increase the soreness of the parts. If the inside of the cheeks and tongue are thickly covered with sloughs, it may sometimes be convenient to clean the mouth once a day, but it will in general be useless, till the disease is in some degree checked, and the parts underneath inclined to heal. Proper applications will then be of use, both by keeping the mouth clean and healing the mouths of the excreting vessels.

For this purpose an innumerable number of different lotions and gargles have been invented; but I have found none so good as a mixture of borax and honey, a drachm of the former to an ounce of the latter.

RED GUM.

(*Strophulus intertrinctus*.)

The eruption characterizing this affection appears usually in small spots, often confined to the face and neck, but at others it extends to the hands and legs, and even the whole body appears

in large patches, and sometimes raised above the surface. It will likewise appear in the form of small pustules, filled with a limpid or sometimes with a purulent or yellow liquor. I have never known what name to give this species of red gum, and as it is a disease that requires no attention, I will not take the trouble of naming it. There is another species as small as pin heads, or even their points; they are firmer than the former, often of a pale colour and opaque, which has generally been accounted a kind of red gum. But I think it has been suggested by some late writers, that for distinction sake it may be termed white gum.

Every species of this eruption is produced by the same cause, and can scarcely be termed a complaint, it being an effort of nature to throw off some acrimony, consequently an evidence of the strength of the constitution. On this account it is, I apprehend, that writers have not usually taken notice of it, though it should seem requisite if only for the satisfaction of parents, who are sometimes distressed on account of it, especially if it be of the more extensive species. All that I have ever found necessary was a small quantity of magnesia, according to the state of the bowels, and to keep the child moderately warm; otherwise the rash striking in, may produce disease of the internal organs of the body, and be succeeded by sickness or purging.

PRICKLY HEAT.

(*Lichen tropicus.*)

The prickly heat appears without any preceding disorder of the constitution. It consists of numerous papulæ, about the size of a small pin's head, and elevated so as to produce a considerable roughness on the skin. The eruption is of a vivid red colour, and often exhibits an irregular form, two or three of them being in many places united together; but no redness or inflammation extends to the skin in the interstices of the papulæ. This complaint is much more easily prevented than cured in children; the best preventative is bathing in cold water, and keeping the skin clean by frequent washing with soap and cold water. All that can be done in the way of medicine, or that will be proper, will be to keep the bowels regular with a little magnesia or castor oil.

MILK BLOTCH.

(Crusta lactea.)

THIS disease has a very unpleasant appearance, but is notwithstanding equally innocent with the former. I have never seen an infant much loaded with it, but what has always been healthy; it falls to the lot of the finest children and such as are well nourished. Some writers have supposed it to be owing to the richness of the milk; and it is remarkable in this eruption, that however thick and long continued the scales may be, they never excoriate, nor leave any scar on the parts. It generally makes its appearance first on the forehead or scalp, often extends half-way over the face, in the form of large loose scabs, and appears very much like the small-pox after they are turned. Very little is generally necessary to be done; excepting to allow the child less or more diluted nourishment. It usually disappears of itself when the child has cut three or four teeth. It sometimes makes its appearance shortly after vaccination, and has been mistaken by those who are not acquainted with the disease, to originate from impure vaccine matter. I was lately consulted in a case supposed to be of this kind, where the physician had given a grain of calomel every day for several weeks without any benefit, and fortunately without any apparent injury; which is rarely the case when powerful medicines are administered unnecessarily. I advised only to keep the body open with the flowers of sulphur and magnesia, four grains of the former and six of the latter, as often as appeared necessary, for a child of one year old.

THE SCALD HEAD.*(Tinea.)*

THE scald-head is a very troublesome complaint, and is said to be often a scrofulous symptom; I have never met with it in infants, but it being a common complaint in childhood, it may be proper to notice it, as it sometimes proves a very tedious disease. I hope, however, to point out a successful method of cure, the unpleasantness of which has improperly prevented its being more

generally used. It being a mere complaint of the skin, may be most successfully treated by external applications, provided they are applied in time.

In the first onset of the disease, the eruption is seated in the little glands at the root of the hair. The eruption is sometimes dry but generally moist; the acrid discharge or moisture produces little ulcers, which, being thoroughly cleansed with soap and water will soon heal, as I have found in many other affections of the skin. If the complaint be taken early, that is, before it has spread far over the head, and whilst the scabby patches are small and distinct, it may be frequently, certainly cured (and that without danger to the brain) by the sulphur ointment, by rubbing on a small portion twice a day, the patient to remain within doors, and his bowels properly kept open. But if the disease has spread itself over a great part of the head, great caution must be used not to heal it suddenly for fear of producing disease of the brain. It will then be most safe to keep the head as clean as possible, and apply the sulphur ointment to a small space at a time so as not to stop the discharge suddenly; it will likewise be proper to administer small doses of calomel and rhubarb, the fourth part of a grain of the latter to six grains of the former to a child of one year old, and continued every two or three days for some time after the disease appears to be subdued.

ITCH.

(*Psoriasis.*)

This disease commences, in general, with numerous minute elevations of the skin, more perceptible by the touch than by sight. Upon these, small distinct scales are soon after formed, adhering by a dark central point, while their edges may be seen white and detached. In the course of two or three weeks all the intervening cuticle becomes rough and chappy, appears red and raised, and wrinkled, the lines of the skin sinking into deep furrows. The scales which form among them are often slight, and repeatedly exfoliate. Sometimes without any previous eruption of papulæ, a large portion of the skin becomes dry, harsh, cracked, reddish and scaly, as above described.

In other cases the disease commences with separate patches of an uncertain form and size, some of them being small. The patches gradually expand till they become confluent and nearly cover the part or limb affected.

The cure may generally be accomplished by frequent washing with castile soap and water, and rubbing the parts affected with sulphur ointment, which in obstinate cases may be rendered more effectual by the addition of powdered hellebore. It may likewise in very obstinate cases, be proper to administer three or four grains of sulphur in combination with half a tea-spoonful of magnesia, once a day to a child of one year old.

TETTER.

(*Herpes.*)

The appearance of this disease is usually preceded, for several days, by slight febrile symptoms, and these sometimes continue after the eruption has come out. On the part which is about to be the seat of the disease, we may at first notice a multitude of very minute red points. In the course of twenty or twenty-four hours more, the skin upon which those points appear, becomes uniformly red; and small transparent vesicles make their appearance. This eruption most commonly occurs on the upper part of the body, particularly on the neck, breast, arms and cheeks. It consists of small transparent vesicles, aggregated into irregular clusters of various sizes, from a few to nine or ten inches in circumference. These vesicles are sometimes very minute and at others they are as large as a millet seed.

About the fourth or fifth day the vesicles either burst and give exit to the included fluid, or they begin to wither and concrete into yellowish scales, which usually fall off about the eighth or tenth day, and leave a red and irritable surface.

Treatment.—When the eruption is confined to a small part of the body, it will in general be sufficient to apply frequently to the spot a little blue ointment, or wash it with a solution of the muriate of ammonia in water, half an ounce of the former to half a pint of the latter will be likely to make a cure, if it is continued a

sufficient length of time: it ought to be applied twice a day and continued for some time after the disease appears to be removed. But if the disease should prove obstinate internal remedies are sometimes necessary, such as the decoction of sarsaparilla with a little antimonial wine, five drops of the latter to a wine-glassful of the former for a child of one year to be taken at bed-time. The daily use of the warm-bath succeeded by gentle friction with a dry cloth will be highly proper. In cases of a sudden appearance of the disease, if attended with fever or sickness, an emetic followed by small doses of calomel will be proper.

THE ROSE OR, ST. ANTHONY'S FIRE.

(*Erysipelas*.)

Erysipelas often affects children, and even infants, very soon after birth. It makes its attack in general quickly, and the worst kind begins about the pubis, and spreads along the belly and down the thigh. There is sometimes great swelling and the parts become hard, purple, and often end in mortification; so that parts of the body have dropped off. A mild kind, which I have met with much oftener than the former, begins about the hands and face, or not unfrequently the feet, and it is worthy of observation, that this frequently ends in suppuration; and on the face especially, a very large collection of matter may be found.

In the majority of instances, various symptoms of deranged health precede the appearance of the disease; such as lassitude, slight headach, loss of appetite, nausea, general depression, furred tongue; and a disagreeable feeling in the stomach. The symptoms usually terminate in febrile reaction, before the cutaneous inflammation commences; but in some instances the local and general affections come on at the same time and occasionally the inflammation appears before the febrile irritation is developed.

Such are the general phenomena of this very troublesome and prevalent disease. It is subject, however, to several prominent modifications, exhibiting important peculiarities both in relation

to the character of the local affection and the nature of the attending fever.

Treatment.—Purgatives are useful in every variety of this disease; and when the inflammation attacks the face they are particularly serviceable. The common saline purgatives are in general the best; but where there is much sickness of the stomach and fever, calomel in small and repeated doses, assisted by a few grains of magnesia, is preferable. In the commencement of the disease, especially where it makes its appearance suddenly, the exhibition of an emetic will often prove particularly useful; the ipecacuanha in five grain doses for a child of one year.

External applications if applied early, are of great importance; the application of cloths dipped in a solution of acetate of lead, may be tried with a view of allaying the inflammation; or if the disease be slight, the part may be dusted with flour; but if supuration is going to take place, an emollient poultice should be applied, and, as soon as the matter forms, it should be let out, and the parts gently supported with a proper roller, beneath which may be lightly placed compresses wet with the tincture of opium. The strength is to be supported by means of a good nurse, and giving white wine whey. If the child should be weaned, it will be proper to allow it a small quantity of beef tea together with wine whey frequently.

SCARLET FEVER.

(*Scarlatina.*)

When the Scarlet Fever becomes epidemic among adults, children rarely fail being attacked by it in great numbers, and frequently sink under it. As it is one of the most fatal diseases, I will bestow some pains in describing its various forms, which I consider of the greatest importance in its treatment. Authors have divided the disease into three varieties or forms, namely, *simplex*, *anginosa*, and *maligna*.

The mild variety, or *scarlatina simplex* begins with fever, attended with considerable debility, chilliness, nausea, and pain in the bowels. It often attacks suddenly in the afternoon or even-

ing, the child having been perhaps not an hour before, lively and apparently in good health. The pulse is very frequent, being often one hundred and forty in a minute; the body is very warm, and the feet cold; the breathing frequent and irregular, the eyes sunk, and the eye-lids turgid and red on the inside. On the second day, some times earlier, an eruption appears first on the face and neck, and soon, generally within twenty four hours, it is diffused over the whole body. It consists of numerous minute specks so closely set together, that the skin appears altogether of a red colour and feels rough. Broad patches also appear on those parts which are most exposed to heat or pressure. The inside of the eye-lids, nostrils, cheeks, and fauces, are of a deep red colour, and the tongue participates in the appearance. The eruption is most vivid at night, and especially on the evening of the third day. On the fifth day it declines, and is generally gone by the seventh. This variety of the disease sometimes commences and proceeds for a day or two mildly, and then suddenly assumes all the violent characteristic of the following.

Anginosa.—This variety commences with the usual symptoms of fever; and in general, as soon as it appears, or even before the fever commences, the throat will be found, on inspection, to be affected; but sometimes the difficult breathing does not take place till the eruption comes out, which is near the same period as in the former species. From the first, there is a sensation of stiffness about the muscles of the jaw and neck, and soon all the joints become stiff; on the second or third day the throat feels as if straightened, the voice becomes hoarse, and sometimes a croupy cough takes place. In this case, the breathing often becomes sonorous, or even so obstructed that the child is suffocated, as in the croup. In very many cases swallowing is performed with difficulty, and sometimes the drink returns by the nose. On examining the mouth, we find at first, that the tongue has a very red colour, and its papillæ are evidently enlarged. In the progress of the disease, it is often covered with a fur. The tonsils are early observed to be of a deep red colour, and very soon whitish streaks may be discovered. Superficial ulceration occurs frequently on the second or third day, and the parts become covered with a white or ash-coloured substance, or slough, whilst the rest of the tonsils become of a dark red colour.

The eruption in this variety, is the same in appearance and duration as in the former. When it is slight, or disappears suddenly, it has been said the event is dangerous; but I have not found it always the case. The fever, if attended often with great nausea, bilious vomiting, restlessness, headach and delirium; the heat is excessive, the pulse feeble, and sometimes fluttering, always very frequent. The languor and inquietude are great, especially when sloughs are forming on the tonsils. About a week or ten days after the eruption fades, swelling of the legs often takes place, and continues even for two or three weeks; sometimes other parts of the body swell.

Scarlatina maligna.—This form of the disease usually commences like the preceding varieties, but soon betrays its violent and malignant character. The eruption comes out at uncertain periods from the second to the fourth day; and is usually pale at first, acquiring, in a short time a dark or livid hue. It is also very irregular in its duration, and often suddenly disappears soon after it has come out, and re-appears on some parts of the body two or three days afterwards. The heat of the skin is variable, and not generally very warm. Delirium occurs at an early period, and often continues with occasional intermissions throughout the course of the disease. The tongue is dry, and covered with a brown or dark fur; the breath fetid. On examining the mouth, gray-coloured sloughs are seen on the soft palate and tonsils, which soon acquire a brown and at last a dark colour.

Treatment.—In the first variety, or simple form of this disease, nothing but the mildest antiphlogistic treatment is necessary, such as one or two doses of salts, or a gentle emetic of antimonial wine; a mild, unïrritating liquid diet; cold or tepid drinks, as barley or toast water acidulated with lemon juice, or lemonade, confinement in a moderate and equable temperature; with the use of slightly astringent and emollient gargles, such as sage-tea with a small portion of alum, and sweetened with honey; or an infusion of green tea, is all that is generally necessary to resort to in cases of this kind. I consider it proper, however, to observe in this place, that it is not always in our power to decide whether the disease at its onset will be simple or complicated.

Therefore it will be proper during the forming stage, especially if attended with considerable lassitude and oppression, paleness of the face and skin, headach and sickness of stomach, to commence the treatment as if the disease were about assuming an aggravated character. An emetic of ipecacuanha frequently does much good by removing internal venous congestions; and after its operation a brisk purge may be given; two grains of calomel and five of rhubarb will be a proper dose for a child of one year of age. When the subsequent febrile excitement becomes strongly developed, it should be moderated by administering small doses of nitre and antimony, one grain of the former to the eighth of a grain of the latter every two or three hours until the fever is subdued. A little of the sweet spirit of nitre together with rest, and cooling drinks will be all that will be necessary in the forming stage.

In the second species or *anginose* form, the disease is much more dangerous and requires a more vigorous practice. The early use of cold water applied to the body with a sponge often gives a favourable turn to the disease. Gentle purgatives are likewise necessary, and so far from weakening the patient, if prudently administered, seem to increase his strength. Wine whey should be given in small but often repeated doses. Ammonia is of benefit when the fever abates and the patient appears weak. Two drachms should be dissolved in six ounces of water, and the solution sweetened with sugar. To an infant a tea-spoonful, and to a child of one year, from a desert to a table-spoonful of this solution may be given every two hours, or oftener if there is much debility. When there is difficult breathing caused by ulcers in the throat, or swelling of the tonsils, an infusion of *capsicum*, (cayenne pepper) and vinegar may be employed with advantage, so much of it is to be added to a given quantity of water as renders it pungent. This mixture may be given in the same doses as the solution of ammonia, and it acts both as a general stimulant and as a local application to the throat.

Bark or quinine has in many cases been of service; but in general children do not like to take it. When it is prescribed it ought to be combined with *ammonia* or *capsicum*. Water acidulated with sulphuric acid, makes a very proper drink. If the

patient at an advanced period, be restless, and the skin dry and rough, ablution with tepid water will be useful. As gargles, *capicum*, vinegar with water, or muriatic acid with honey and water, may be employed; but as children often cannot, or will not use gargles, it may be useful to throw them on the tonsils with a syringe. It will also be proper to touch the sloughs and tonsils frequently with a pencil dipped in the tincture of myrrh or camphorated spirit of wine.

Malignant Scarlatina.—Though the attack is generally vehement, and the febrile excitement at first severe, tending rapidly to consume the vital energies, and in proportion to the violence of the excitement, though transient, will be the tendency of the disease to assume a putrid character. It is therefore of the greatest importance to break down, by energetic measures, the febrile commotion. I have already stated that the early exhibition of an emetic, followed by a brisk purgative, was of the greatest importance in the forming stage of this disease; and it is as beneficial in this variety also; and the treatment should always commence with those remedies if they are sufficiently early applied. If after the operation of those evacuants, the stage of excitement begins with violent symptoms, such as intense heat of the skin, severe headach, delirium, and a frequent, quick, and tense pulse, blood should be taken by applying cups about the head or breast, or if the child be strong it may be taken from the arm by bleeding: from two to three ounces may be taken from a child of one year of age. By one such bleeding, and the brisk operation of a purgative, the violence of the disease is often broken down, and its subsequent course rendered milder and more manageable. It must not be forgotten, however, that those active measures must be entirely restricted to the early period of the disease, or in the early stage of excitement; for when collapse is approaching, bleeding is totally out of the question; and when, from an improper treatment in the beginning, or from a peculiar violence of the disease great and universal collapse ensues, recourse must be had to a more active, stimulating and tonic treatment. The carbonate of ammonia in frequent and active doses, wine, camphor, and opium where the brain is not particularly affected, infusion of snake-root with strong doses of elixir of vitriol; quinine and cap-

sicum are the remedies upon which our dependance must be placed. I have used the *capsicum* with particular success at this stage of the disease. The manner in which I have employed it is as follows: take two tea-spoonsful of small red pepper, or three tea-spoonsful of common cayenne pepper, and pour upon them half a pint of boiling water; this is to be strained, and half a pint of good vinegar added to it. Of this liquor, when cold, one half of a tea-spoonful may be taken every half hour by a child of one year old during the collapse stage; after which, cooling drinks, acidulated with lemon-juice, or the sulphuric or muriatic acids, should be given freely.

Local Treatment.—Blisters have been applied to the throat by some physicians; but I never have known them to do good, but frequently harm; in bad cases, they have frequently been followed by mortification of the part. Mustard plasters may be applied about the neck with the greatest advantage in the stage of collapse, and let remain on the part until smarting or redness is produced, for the purpose of moderating the tendency to ulceration in the throat.

During convalescence from scarlet fever, which is frequently tedious, a light and nourishing diet should be allowed, such as beef tea, chicken water, and a little wine: if the child be very young, wine whey. I have already mentioned swelling of the extremities of children as a very common consequence of this disease. The best *diuretic* in cases of this kind, is *digitalis*, either alone or in union with small portions of calomel and nitrate of potash. I have derived much advantage in this and other varieties of dropsy from the following combination: cream of tartar 30 grains, sulphat. of potassa 60 grains, squill 40 grains, tartrat. of antimony 1 grain, to be pulverised and divided into twelve equal parts, two of which are to be given to a child of one year old during the day. Small doses of tartrat. of antimony dissolved in water may also be given with advantage. The occasional use of the tepid bath will often prove beneficial. The patient should be kept warm and at rest.

The scarlet fever is sometimes succeeded by pain in the ear, followed by temporary deafness, and the discharge of matter; this often abates upon syringing the ear, with a decoction of

camomile for a few days; but it may be more obstinate, and the child remain permanently deaf. In a case of this kind, it will be proper to establish an issue in the back of the neck by applying caustic, or by applying a small blistering plaster frequently.

When this disease makes its appearance in a family, the children who are unaffected, ought if possible to be sent away, and should not return for a month. In the meantime the apartment should be washed and well ventilated. Those who are much exposed to the contagion ought to take as a preventative a small quantity of the extract of *belladonna* (night-shade). Three grains of the extract are to be dissolved in an ounce of cinnamon-water, and given in doses of from two to three drops to children under one year old, and one drop more for every year above this age.

MEASLES.

(*Rubeola, morbelli.*)

By the American, English and French physicians the terms *rubella* and *morbelli* are applied to the same disease.

Measles commence with a distinct, eruptive fever, on the first and second days of which, the patient complains of irregular coldness or shiverings, alternated with heat, general debility, languor, loss of appetite, has a white or furred tongue, thirst, pain in the back and extremities, slight sore throat, hoarseness, with a dry cough and sneezing, weight and pain across the forehead, giddiness, frequent and irregular pulse, costiveness and high coloured urine. On the third or fourth day the symptoms become more severe, the eyes are tender, watery, and appear as if inflamed; the eye-lids are often swelled, and the patient sneezes more frequently. There is often at this stage of the disease considerable difficulty in breathing, and sometimes pain and tightness in the chest. The eruption appears betwixt the third and sixth day of the fever, but more frequently on the fourth. It is first visible on the face, next on the breast, and in a short time on the extremities. The eruption consists at first of small red spots, apparently a little raised, but without vesicular tops. In children under a year old the eruption is not so confluent as in older subjects: in

some cases the eruption is pale and indistinct; but in general, whether vivid or not, when the finger is passed over the surface, the skin feels unequal, from the elevation of the spots or eruption. Sometimes the eruption suddenly and prematurely recedes, or never comes out fully; in both cases the fever is much higher, and the oppression greater. In the regular course of the disease the eruption ought to begin to disappear on the sixth day. The inflammation of the eyes, sneezing, and hoarseness, generally decline with the eruption.

Such are the ordinary course and phenomena of measles. In its general character, as well as in the particular phenomena, it is subject, however, to various irregularity and modifications, which sometimes demand especial attention in the treatment of the disease.

In the earliest records we have of this disease, it was confounded with scarlet fever and the diagnosis between those two affections is sometimes attended with considerable difficulty; yet the catarrhal symptoms, and the character of the eruption, will always enable an experienced observer to distinguish measles from scarlet fever. In the former disease, the rash generally consists very obviously of small red spots running into each other, with the central points more vivid than the margin. In the latter disease the redness is more diffused and uniform, consisting of an infinite number of very minute red points united together, resembling much the redness produced in a scald or burn. These two affections differ from each other, also, in their general course or progress. The rash of measles generally comes out about the fourth day from the commencement of the fever. In scarlet fever the eruption usually comes out on the second, and not unfrequently on the first day. The sneezing, hoarseness, and dry cough, inflamed and watery eyes, so rarely absent in measles, can seldom fail to establish a certain diagnosis.

Treatment.—The treatment of this disease is extremely simple, and may be briefly explained. When the eruptive fever is regular, not very violent, and unattended with internal inflammations or congestions, the remediate treatment should be gentle. In general, all that is necessary, is to keep the bowels open by mild laxatives, and to allow the patient the free use of tepid

diluent drinks, and in instances attended with a very moderate degree of febrile reaction, some of the mildly stimulating infusions, such as sage, elder blossoms, marjoram, balm, or cupatorium, should be ordered. In cases attended with a very high grade of fever, especially if the child is getting teeth, or if the disease is attended with fits, a moderate abstraction of blood is, without doubt, proper, and ought certainly not to be neglected: the refrigerating diaphoretics also, are often indicated, and often answer the purpose of bleeding. Small doses of antimony (common tartar emetic) dissolved in water, four grains to the ounce, ten or fifteen drops to be given every hour until slight sickness is produced, sweet spirit of nitre, the saline effervescing draught, the ordinary nitrous powders. But although an active treatment is not necessary and is often prejudicial in the regular form of measles, this is by no means the case when the disease becomes complicated with visceral inflammations, internal congestions, or other irregular and dangerous symptoms. When, after the initial stage of oppression, the febrile reaction does not take place, and the face remains pale and sunk, the pulse feeble, the breathing oppressed, with great prostration, and a torpid state of the sensorial powers, prompt and decisive measures must be adopted to remove the internal congestions, and to excite the reaction of the heart and arteries. If this be not effected the eruption will not come out, and the patient will sink into a fatal stupor. In cases of this kind it will be proper to employ the warm-bath, stimulating friction of the skin, hot flannel applied to the body and extremities, mustard plasters over the region of the stomach and let remain on the part until redness and smarting is produced, together with warm and stimulating drinks, such as wine or wine whey. Antimonials and purgatives must not be used unless the bowels are confined; then half a grain of calomel and five of rhubarb may be given; if there is a loose state of the bowels, the fourth of a grain of opium may be given until they are checked.

Convalescents from this disease ought to avoid all exposure to the influence of a cold and damp atmosphere; even in the summer season they should not be suffered to go out of doors except on a mild warm day, and not without additional clothing. The diet

during the declination of the disease, and period of convalescence, should be unirritating, such as light soups or beef-tea ; all kinds of stimulating drinks must be avoided.

THE ROSE.

(*Roseola infantilis.*)

This disease is often mistaken for measles, and in fact, it has no small resemblance to it. The eruption is generally preceded by chilliness, alternating with flashes of heat, languor, faintness, restlessness, occasionally with delirium or convulsions. Generally on the second or third day from the commencement of these symptoms, the rash appears generally first on the face and neck, and afterwards on the body and extremities. The spots are larger and more irregular than those of the measles in which the eruption appears in small marks like flea bites: the spots are of the colour of a rose, from which the disease takes its name. The throat and tonsils are tinged with the same colour, and the patient feels a slight roughness in swallowing. The eruption appears first in the night, and continues vivid next day, with considerable itching. On the third or fourth day only slight specks of a dark red colour are observable, which soon disappear. In some instances, the skin on many parts of the body becomes of a dusky colour, with an appearance of slight vesication or desquamation. The drowsiness, sneezing, watery eyes, and running at the nose, so common in measles, are absent in *roseola*, and there is no cough or *pulmonic* complaints, whilst at the same time, the spots are larger than they are in measles.

Children are most likely to be attacked with this eruption during dentition or in a disordered condition of the bowels. No particular treatment is necessary, excepting to regulate the bowels by giving a few doses of magnesia.

SMALL-POX.

(*Variola.*)

The small-pox begins with a febrile attack, which, together with cold sensations, pain in the back and loins, vomiting, pain in the region of the stomach, starting, and coldness of the extremi-

ties. As the fever advances, the pulse becomes more frequent, the skin hotter, the face flushed, the eyes tender, and the thirst great. The child starts, grinds his teeth, and sometimes has a convulsive fit, and often complains of severe cramp in the extremities, or lies in a kind of stupor. On the third or fourth day after the fever commences, an eruption appears on the face, shortly after on the breast and extremities. The eruption consists at first of small, hard, pustules, of a very red colour; on the second day, the top is clear, and a very small vesicle is observed to be forming. On the third day, if the eruption is likely to be copious, the number of pustules will be increased, especially on the face. The pustules on the body are larger and rounder, than they are on the face. The base is surrounded with an inflamed rim; and after a short time, if the eruption is copious this inflammation spreads from one pustule to another, so that all the surface appears to be red. The skin covering the *vesicle*, is somewhat dark, but its contents are like water; on the fifth day the surrounding redness is a little paler, the skin of the *vesicle* is white, and more of the pearl appearance, and will be full and smooth. On the fifth day, they are rather watery; on the sixth day, the skin of the vesicles will begin to dry, and by the tenth day the pustules will begin to be covered with scales, which will begin to fall off on the sixteenth day after they first made their appearance.

Such is a very general history of the distinct small-pox; but the disease may appear in a different form, known by the name of the confluent small-pox. In this species of the disease the pain in the back and extremities during the eruptive fever, is almost always much more severe than in the distinct variety; and, in general, all the febrile phenomena are more violent in the former than in the latter. The heat of the skin is very great, the thirst urgent, the tongue dry, and covered with a dark brown or blackish fur, and the nervous system is considerably deranged. In the more aggravated instances of *confluent* small-pox, the fever most generally assumes a typhoid character. The tendency to copious perspiration, often noticed in the distinct variety, is rarely observed in this species; but a profuse diarrhœa sometimes occurs just before the eruption appears, and still more commonly during the suppuration.

In general, the eruption appears at an earlier period in the confluent than in the distinct variety of the disease; and the time of its appearance is altogether much more irregular in the former than in the latter. In some instances, the pustules come out as early as the second day, and occasionally, not until the sixth or seventh day after the commencement of the fever. When the eruption is confluent, the small red papular points which appear at first, run into each other, and form a red, tumefied surface. When the suppuration is complete, a very manifest aggravation of the febrile symptoms occur, constituting what is termed the secondary fever. The matter in the confluent pustules is of a whitish brown, and sometimes of a dark colour, and in some instances, it acquires a very corrosive character.

This disease sometimes assumes, from the commencement, a highly inflammatory character. It begins with strong chills, succeeded by intense febrile heat, and frequent, full, and hard pulse; sometimes delirium; and in young children convulsions. Internal inflammations, particularly of the brain or lungs, are apt to take place. When the former organ becomes affected, violent delirium, coma, convulsions, or apoplexy ensues. Such is a brief statement of the usual course and phenomena of the confluent variety of small-pox.

Treatment.—From the different symptoms characterizing this disease, it will appear obvious that the treatment must be, in some degree, different. In the distinct variety, during the eruptive fever, it will be proper to employ the antiphlogistic regimen. Emetics, at an early stage of the fever, are generally serviceable; and it is also proper to give gentle purgatives. When the eruption is coming out, the cool regimen should still be persisted in, and the bowels kept open. After the pustules have appeared, the fever generally abates, and then, although heat should be avoided, the cooling and purgative plan need not be carried so far as formerly. But if the fever still continues, those means should also be continued. The diet must be sparing, and ripe fruit or acid drinks should be given freely. If secondary fever supervenes, it is to be removed by laxatives and cool air; or, if there be oppression at the stomach, a gentle emetic may be given.

In the confluent kind, during the eruptive fever, the cold plan

should be strictly employed; purgatives are of essential benefit. When the eruption appears, the cooling regimen should still be persisted in and both vegetable and mineral acids ought to be given. Bark or quinine will also be proper, provided that it is not productive of sickness or vomiting. When the fever is aggravated at the height of the disease, mild emetics may sometimes be given with advantage; but in general they may be dispensed with, and more benefit may be derived from laxatives or clysters.

Opiates are sometimes necessary for the purpose of abating nervous irritation; and wine, or, if the patient be an infant, wine whey, with a more nourishing diet, should be prudently given, to support the strength, which is apt to be completely exhausted under the constant fever and irritation. It will also on that account be necessary to restrain diarrhœa when it is bad; for this purpose the fourth of a grain of opium and six grains of chalk, may be given twice a day to a child of one year old.

Blisters may be applied to the breast when there appears from the difficulty of breathing, or pain in that part, that there is deep seated inflammation in the part; in very young children or weak subjects, mustard plasters will be the safest on account of the danger of mortification; the mustard should be kept from the skin by applying a thin strip of muslin on the part before the mustard is applied; it should be kept on the part until it smarts severely but not to blister the skin. Sometimes the brain is the seat of congestion or inflammation, when it will be proper to apply leeches to the temples; in older children, when the pain in the head is very great an ounce or two of blood, taken with cups from the back of the neck, will be followed with instant relief. When the throat is much affected, and filled with viscid phlegm, gargles of vinegar and water are of use; but in young children, (as they cannot be made to use them) a gentle emetic of ipecacuanha may be given with benefit, three or four grains in a little sweetened water will be sufficient for a child under one year.

If the eruption suddenly subsides, or if it altogether recede, cordials, wine whey, the tepid bath, with ammonia, must be administered with the view of bringing out the eruption again.

In some instances the ulcers and inflamed pustules, succeeding

variola, are troublesome, and occasionally fatal. When they are large, suppuration should be hastened with a poultice; when small, or if they be indolent without much redness, gentle friction with camphorated liniment, and bathing with laudanum, is proper; the strength must be supported by nourishing food, and the cold salt-bath will be of service.

To prevent the pustules from affecting the globe of the eye and injuring the sight, pieces of folded linen wet with cold water should be kept applied to the eyes during the eruptive fever. The application of camphorated spirits has been used, but it will be found that cold water is the most agreeable and also the most effectual in keeping down the inflammation.

COW-POX.

(*Vaccina*.)

This disease has for a long period been known in dairy countries; it was found to be produced in milkers from the cows, which are subject to a pustular disease, which, when communicated to the hands of milkers, produced an eruption termed cow-pox. It is a disease which requires no attention, and I should not have noticed it, were it not on account of its being used as a certain preventative of small-pox; a discovery which was made about forty-five years since, and a discovery, too, which has conferred on mankind an incalculable benefit. I therefore think it my duty (as Providence has provided a salutary check to one of the most distressing maladies by which man has been afflicted,) to make a few remarks in the way of suggestions. First, the symptoms and progress of the disease; when the vaccine infection is communicated to the human subject. Second, of the *diagnosis*, or manner of distinguishing the genuine from the spurious disease. And third, of the importance of applying matter taken from a healthy subject. I beg the reader to excuse my prolixity, as I consider the subject of the greatest importance, and as I have long laboured under the most firm conviction that the genuine cow-pox will never be promulgated universally and effectually—that the public will never be freed from frequent and terrible visitations of that most loathsome of all pestilence, small-pox, until

the city authorities shall, in their wisdom devise some plan to obviate the present defect, some decisive measure, that the ignorant empiric or careless physician shall be silenced, and the children of the poor throughout the city be regularly and skilfully vaccinated, by the appointment of competent persons for the important work. Without some such system there can be no security. I will take four-fifths of this populous city, and declare it as my firm conviction, that for the last five years, vaccination has most decidedly lost ground. Some parents refuse to have their children vaccinated on account of their liability to take the small-pox, after they have went to the expense of having it performed; others on account of having one child injured by impure matter refuse to have the remaining children vaccinated. Cases of this kind must be known to every physician; yet instead of increase of zeal, we hear of careless indifference, in lieu of that enthusiasm and humane solicitude which at first characterized the application of this wonderful discovery.

The artificial cow-pox in the human subject is much milder than the casual disease, and incomparably milder than the small-pox, even under the form of inoculation. It neither requires medicine nor regimen; it may be practised at any season of the year; and not being infectious by effluvia, one person may be inoculated without endangering the life of another.

The operation of applying the matter for the purpose of communicating the disease, is very simple, and may be performed by any person, (and I believe there would be less danger, and more certainty in having it properly applied, if parents were to attend to it themselves; when the custom first commenced, it was attended to altogether by old women, and at that time there was no such thing heard of as a child taking the small-pox after vaccination.) It consists merely in abrading the skin on the arm with the point of a lancet or needle, and then applying on the scratch a little of the variolous matter.

Symptoms.—On the third day after the matter has been applied, the abraded part of the skin will be slightly red, and, if pressed with the finger, feels hard; next day the red point is a little increased and somewhat radiated. On the fifth day, a small vesicle appears, but it is still more easily seen on the sixth. This gradually in-

creases till it acquires the size of a split pea. The colour of the vesicle is a dull white, like a pearl; its shape is circular, or slightly oval, when the inoculation has been made with a lengthened scratch, acquiring about the tenth day a diameter equal to about the third or fourth part of an inch. Until the end of the eighth day, the surface is uneven, being depressed in the centre; but on the ninth day it becomes flat, or sometimes rather higher at the middle than at the edges. The margins are turgid and round, projecting a little over at the base of the vesicles; the vesicle is not simple, but cellular, and contains a clear limpid fluid, like the purest water. On the eighth or ninth day the vesicle is surrounded with an areola of an intense red colour, which is hard and tumid. About this time, an efflorescence sometimes takes place near the areola; it consists of very small pimples, and is attended with a slight fever. On the eleventh or twelfth day, as the areola decreases, the surface of the vesicle becomes brown at the centre, and is not so clear at the margin; the cuticle gives way and there is formed a glossy hard scab, of a reddish brown colour, which is not detached generally before the eighteenth day.

General treatment is seldom required during the disease. When a slight fever attends, which is rarely the case, a reduction of the diet, with some mild aperient medicine, diluted drinks, with small doses of sweet spirit of nitre, should be ordered. In some instances, the inflammation and swelling around the pustule becomes so great as to demand particular attention. This is most apt to occur when the vesicle is irritated by scratching or rubbing; at the time when the areola is about making its appearance; more especially when at the same time some other cause supervenes, calculated to produce fever. For the purpose of moderating the pain and inflammation, a weak solution of sugar of lead, or cold water, or a poultice made of lead water, may be applied to the inflamed part, and gentle purgatives, such as magnesia, may be given.

Diagnosis.—An attention to the following circumstances will enable us to distinguish the genuine from the spurious disease, a circumstance highly important to all classes of society, as the physician seldom calls more than once, and in some instances not at all. The parents or nurse ought to be able to tell whether the

disease has run its proper course, otherwise the child may be in danger of small-pox.

First.—In the genuine disease, little or no inflammation except what occasionally arises from the mere scratch of the lancet can be perceived until the second or third day, and sometimes not until several days later. In the spurious affection it is different; considerable inflammation and elevation of the skin at the place where the matter has been introduced, appears sometimes in a few hours, and always in about twenty-four hours.

Second.—In the genuine vaccination, the small point of inflammation which appears three or more days after the matter is inserted, increases gradually until about the seventh day after its first appearance, at which time it is at its full state of perfection. In the spurious disease the pustule arrives at maturity in a much shorter time: generally by the third or fourth day from its first appearance scabbing commences.

Third.—In the cow-pox a beautiful circular and circumscribed areola always surrounds the pustule, and this is usually in its most perfect state about the seventh, or sometimes the sixth day. In the spurious affection of this kind, the areola, or rather inflammation, occurs on the first or second day after the appearance of the pustule; and the pustule appears more like a common festering sore produced by the bite of a poisonous insect, than a pustule.

Fourth.—The genuine pustule is perfectly circumscribed with a flattened surface and a slightly depressed centre, and contains a colourless transparent fluid. The spurious pox is more elevated, not in the centre, is irregular or angulated in its circumference, and contains an opaque purulent matter.

When there is any doubt existing whether the disease has taken effect in a proper manner, the best way is to have recourse to vaccination a second time. If the first has taken properly, a vesicle will rise from the second application, but will be found to disappear in a few days, or it will at least differ in its progress from the first, by becoming surrounded with an areola as early as the second day. The most certain test, and the one that was used at the time when vaccination was first adopted, is inoculation with small-pox matter.

Considerable caution is necessary in procuring matter; no scab, except from the most perfect pustule, should be taken. It should be smooth, of a dark brown colour: when used, the margin, which is of a light colour, should be removed with a knife, and a portion of the remaining dark internal part powdered on a glass and moistened or dissolved with a small portion of cold water. In procuring a scab for vaccination, it is of the greatest importance to be well satisfied that the child from which it is taken be healthy, and particularly that it was not affected with any cutaneous disease. A want of caution on this point may give rise to exceeding unpleasant and dangerous consequences.

With regard to the protecting power of the vaccine disease, I have not the least doubt; and I believe that if a child is vaccinated after it has been exposed for a day or two to the contagion of the small-pox, it will be protected. I recollect a case of the kind, where I was consulted by a parent, who wished to know whether it would be safe to vaccinate a child after it had been exposed three days to the contagion of the small-pox. My advice was to have the child vaccinated, as it would do no harm, and might protect it. It was done, and to my astonishment when I called on the sixth day after the vaccination, I found the one half of the child's body completely covered with the small-pox pustules, whilst the other half was completely free from them, excepting the pustule which was produced by the vaccination.

Some physicians have of late recommended re-vaccination every seven years, so as to renew its impression on the system; and this practice may be proper, at least not a detrimental, precautionary means: but I consider it useless if there is a certainty of the persons being properly vaccinated the first time.

CHICKEN-POX.

(*Varicelli.*)

The chicken-pox is a disease often mistaken for small-pox; and I believe the principal part of those cases of small-pox which occur after successful vaccination, is nothing else than bad cases of chicken-pox. It is not an uncommon thing to hear a certain class of the physicians in this city, boasting of their success in the

treatment of the former disease; they often say they have cured the small-pox in five or six days, when, in fact, medicine or attendance has nothing to do with shortening the disease. When it commences, it must and will run its full course, in spite of all that can be done, and medicine is of no other use than to assist nature in doing her work. The two diseases are so much alike, that the ancient writers made no distinction between them. But we shall see, by paying attention to the symptoms, that there is considerable difference. The chicken-pox is preceeded by eruptive fever, which continues for three days, and is attended with languor, loss of appetite, thirst, furred tongue, pain in the head, back, and extremities, together with nausea, and often vomiting. The pulse is quick, the face occasionally flushed, and cough and hoarseness may attend the disease; convulsions, also, in some cases occur during the fever.

The eruptive fever does not always go off when the eruption appears, but may continue even till the third day of the eruption. In general, however, the symptoms are mild, and sometimes very trifling. The eruption commences on the back or breast, and next appears on the face and head, which is not the order in which the small-pox makes its appearance. In the latter disease the pustules all commence and proceed to perfection at the same time, especially those which are on the same part of the body. In cow-pox the pustules make their appearance at different periods, sometimes two or three days apart, and even sometimes a greater length of time; some of the pustules may be healing whilst others are making their appearance. The pustules in cow-pox very soon after their first appearance, contain lymph, and by the fifth day are covered with scabs or crusts, which is earlier than happens in the small-pox. These drop off sooner than in the small-pox, and seldom leave any mark, which is often the case in the latter affection.

Such is the general description of this disease, but it consists of some varieties which it may be proper to notice here. The first of these, is the *conoidul* variety, the vesicles appear suddenly, and are surrounded by a slightly inflamed margin. On the first day they are elevated, pointed, and filled with a limpid serum; on the second day they are more distinct, and contain a very pale yel-

lowish fluid. On the third day they wither ; and at this time some of them contain a purulent matter, and those vesicles generally leave pits in the skin when the scabs fall off. Scabbing commences on the fourth day. Some of the scabs acquire a dark brown, and others a yellowish appearance. A fresh eruption of vesicles takes place as in the former variety of the disease : they usually come out on the second or third day.

The last variety of this disease which I have named, is called swine-pox, and is characterized by large round vesicles, with irregularly circumscribed bases, and inflamed margins. The transparent serum with which they are distended assumes a whey-like colour on the second day after their appearance, and on the succeeding day they begin to dry and form scabs. The chicken-pox is a very mild disease, and requires no other management than keeping the bowels loose, and the surface of the body moderately cool.

DISEASES OF THE EYE.

Infants and children are as liable to attacks of inflammation of the eye and its appendages, as any other part of the body. They may be produced by accidental irritations, or by disease of the constitution ; and in some cases it makes its appearance without any obvious remote cause.

It is not my intention to enter into a full description of the different diseases to which the eye is subject, in this part of the work, but merely to notice those to which infants and children are most liable, such as catarrhal ophthalmia, purulent ophthalmia, and scrofulous ophthalmia.

DISEASE OF THE EYES FROM COLD.

(*Catarrhal ophthalmia.*)

The eyes of infants are very apt to be inflamed during the first three or four days after birth, especially in the winter season. If it be owing to taking cold, it is probable it has been produced by keeping it too long exposed to a damp or cold atmosphere ; and on this account the bed chamber should be kept moderately

warmed with fire, in damp weather, either in the summer or winter season.

This kind of inflammation, however, is usually of very little consequence, and generally disappears of itself, upon merely keeping the head moderately cool, or by washing the eyes with a little rose-water. If, however, this should not make a perfect cure after using it three or four days, it will be proper to add a small quantity of the sugar of lead and white vitriol, two grains of the former to one of the latter, dissolved in two ounces of rose water, will be found to answer the purpose.

For further information, see catarrhal ophthalmia of adults, in the third part of this work.

DISEASE OF THE EYES FROM IMPURE SECRETIONS.

(Purulent ophthalmia.)

Infants are subject to a disease of the eye, which is called purulent ophthalmia. This, as in the former case, begins with redness of the eye-lids, but soon swell so much as to prevent their being opened; at the same time there is generally a copious and constant discharge of thick yellow matter. The inflammation in this species of ophthalmia, is found also to spread over the eye, and if the disease is not speedily checked, ulceration of the eye, or a speck on the cornea, is the result; or the eye itself may burst. In bad cases, the eye-lids are turned out, especially when the child cries. Both eyes are generally affected.

Treatment.—It is best to commence the treatment by bathing the eyes frequently with lukewarm water. After the inflammation is subdued in some degree, the astringent applications may be used. A solution of (*sulphate of zinc*) white vitriol, in the proportion of two grains to one ounce of rose water, may be injected with a small syring into the eye two or three times a day, which will generally perform a cure.

The infant should be purged freely with magnesia, and if the stomach is disordered, which can be ascertained by a scurf on the tongue, the half of a grain of calomel may be given every other day, until three or four doses are taken, after which the sweet spirit of nitre may be given in half tea-spoonful doses,

twice a day. If, however, the disease should not yield in a week or two, and especially if the infant is strong, a small fly blister may be produced on the nape of the neck, and kept discharging for a week or two, when the disease will be removed.

A variety of applications, such as washes and poultices, have been recommended by physicians and quacks; but they are worse than useless, generally producing permanent weakness of the organ. In cases where there is much inflammation, and the redness cannot be removed by bathing with tepid water, a leech or two may be applied to the temples.

The mother or nurse ought to pay particular regard to her health, and should take an occasional dose of salts or magnesia. If she is in the habit of using coffee, she had better abandon it for a few weeks, and take tea in its place.

DISEASES OF THE EYES BY KING'S EVIL.

(*Scrofulous ophthalmia.*)

This variety of the disease occurs more frequently in children of one or two years of age than in infants, and is frequently the first manifestation of the affection called *scrofula* (king's evil.) Its most characteristic symptoms are, extreme sensibility of the *retina* (or innermost membrane of the eye) to the impressions of light; profuse *serous* secretion, or flow of tears and a muco-purulent secretion from the glands of the *tarsi*, (or thin cartilage situated at the edge of the eye to preserve its firmness and shape,) which, during sleep, agglutinates the eye-lids. The pain is not often great unless a bright light is suffered to fall upon the eye; nor is the redness of the *conjunctiva* (or the thin, transparent, and delicate membrane, that lines the internal superficies of one eye-lid, and is reflected from thence over the anterior part of the ball, then reflected to the edge of the other eye-lid,) generally very conspicuous. In recent and acute cases, effusion of serum sometimes occurs around the *cornea* elevating the *conjunctiva* into a circular vesication, resembling a blister, about the eighth of an inch in breadth. In many instances of this acute character, minute blisters appear scattered over the *cornea* and the *conjunctiva* of the *sclerotic*, or the outermost coat of the eye. These little blisters

vary in size, according to the part of the *conjunctiva* on which they appear, being commonly smallest on the cornea, and increasing as they approach the angle where that membrane is reflected over the inner superficies of the lids, and may be considered as a distinguishing symptom of this disease. These blisters very often break and form ulcers; and if the inflammation be not checked, these ulcerations gradually penetrate deeper into the eye, until they form an opening into the anterior chamber, and give exit to the *aqueous* or watery humour of the eye.

This disease fortunately, however, does not often occur in the acute form; the majority of cases met with being of a chronic character, the blood vessels of the *conjunctiva* remaining in a congested state, with small indolent ulcerations upon the *cornea*, attended with a profuse discharge of tears, and such distressing intolerance of light, that the child keeps its eyes constantly closed, or his hands applied over them for the purpose of excluding the light as much as possible.

In some instances, small ulcerations appear along the roots of the eye-lashes, from which a fluid exudes, causing the edges of the eye-lids to adhere to each other as if glued, or the edges of the eye-lids become red and excoriated.

Treatment.—Bleeding has been a very common remedy in this disease; but I have never seen much benefit result from its use, but often much injury. It is generally feeble children that are attacked by it, and in general blood-letting has a tendency of producing greater debility, and often causes the discharge from the eyes to be much greater. In recent and acute cases, however, leeches should be occasionally applied to the temples, until the pain, irritation, and inflammation are moderated. Purgatives are indispensable, and when the child is strong, calomel combined with rhubarb or jalap in the proportions of one grain of the former to five grains of the latter article, may be given to a child of one year of age, every two or three days. In more delicate children half a grain of calomel may be taken in the evening, and followed next morning by a dose of castor oil or magnesia if the child's breath should have a sour smell, in doses sufficient to cause pretty copious purging. In the more chronic form of the disease, or where it has been existing for a month or two, active

purgation is not in general beneficial. The bowels should be kept in a loose state, however, by small doses of rhubarb or castor oil, or some other mild laxative. In some cases there is considerable disease of the stomach, the appetite being variable and irregular, sometimes much depressed, and at others voracious. When this is the case, emetics may be considered the most useful remedies. The ipecacuanha, in four or five grain doses, may be given to a child of the above age every third or fourth day, at bed-time, during the active state of the inflammation. If, however, the stomach should be very irritable, and the sickness continue four or five hours after the emetic has been given, it will be proper to add the fourth of a grain of opium and the eighth of a grain of calomel to the ipecacuanha. It will also be proper to administer the decoction of sarsaparilla; to a quarter of a pound add half a gallon of water, to be boiled down to half the quantity; of this, sweetened, a wine-glassful may be given three times a day. In recent and severe cases, the diet should be simple and unirritating; such as liquid farinaceous preparations, or thin animal broths; but in the more chronic variety of the disease, where the system is irritable and feeble, a more nourishing, though plain and digestible diet must be allowed, in order to restore the vigor of the constitution.

As regards external applications to the eye, little permanent advantage is to be derived from them. As palliatives, slightly astringent washes, such as weak solutions of zinc in rose water, in the proportions of two grains of the former to one ounce of the latter, to be applied to the eye by dipping a fine linen rag into the solution and applying it gently to the part four or five times a day. When the disease is confined to the lids of the eye, and especially after the redness or inflammation has subsided, benefit may be derived from the application of red precipitate ointment; fifteen grains to an ounce of lard will be the proper strength; it may be applied to the edges of the lids with a camel hare pencil, or a small feather, three or four times during the day and night, which will not only assist in healing the part, but prevent the lids from becoming united by the secretions.

If the above remedies do not remove the disease in three or four weeks, an issue must be established in the back of the neck; the

best application for this purpose, is the tartar emetic ointment; it must be applied to the skin by rubbing it on a part about the space of an inch square, every day until the skin becomes inflamed, when it is to be discontinued, but commenced again after the redness and inflammation subsides. Sometimes it is necessary to keep up the discharge from the back of the neck in this way two or three months. The former remedies may be used at the same time.

Fly blisters have been recommended by some writers, but I consider them dangerous in this species of ophthalmia, as the children attacked by it are generally delicate, and the irritation which a common fly plaster would produce, might increase the disease; in strong children, however, they may be used with advantage.

For further information on the treatment of this disease, see scrofula.

CATARACT.

Cataract is a species of blindness arising almost always from an opacity of what is called the crystalline lens, or its capsule, preventing the rays of light passing to the optic nerve. It commonly begins with a dimness of sight; and this generally continues a considerable time before any *opacity* or dull appearance can be observed in the *lens*. As the disease advances, the opacity becomes sensible, and the patient imagines there are particles of dust or motes upon the eye or in the air. This opacity gradually increases till the child either becomes entirely blind, or can merely distinguish light from darkness.

Although this disease is not very common in young children, it does nevertheless sometimes occur, and infants have been born with a *cataract*.

It would not become a man of the least character and experience, to affect to have much to say in regard to the treatment of this dreadful complaint; the oldest and most experienced practitioners never having pretended to be often, or by any means successful, in the treatment of it. From what I have seen of the disease, however, it is not to be abandoned altogether. I should

think it unpardonable, if I should not hold out some hope in a case of the kind, however little it may be under the control of remedies.

It appears to me that the cause of the disease has not been properly investigated, and the remedies which have been applied were for the removal of the effects only, which could not be expected to be of much use so long as the cause was permitted to exist. It is my opinion, that what is termed a *cataract*, is caused very often by a disease very remote from the eye, and is owing to a weak or palsied condition of the *optic* nerve, causing, in the first place a relaxed condition of the coats or membranes which form the eye, and finally, a dropsical condition of the organ. For further information on this subject, see *cataract* of adults in the third part of this work.

The treatment which I would recommend, where a disposition to the disease has been suspected in children, is to establish an issue in the back of the neck, which may be done by introducing a seton; or, if the child is strong, small fly plasters, for the purpose of producing a blister, may answer, if frequently applied. If the child's general health should be delicate, I would recommend the forth of a grain of calomel, to be given every day, in combination with four or five grains of the rust of iron; this may be given to a child of six months old, until its health is somewhat restored, after which the iron rust or filings should be continued, together with the issue, until all appearance of the cataract is removed. If the child is nursing, and the nurse is healthy, the breast milk is the best nourishment. I would recommend, however, in addition to it, two or three tea-spoonfuls of the essence of beef, four or five times a day; if the child be weaned, the most nutritious articles of diet ought to be used in small quantities, often repeated, so long as the issue remains in the neck. This treatment will have the tendency of diverting the congestion from the eyes, and at the same time strengthening the nervous system generally.

STY.

(Hordeolum.)

The sty is a little bile, which projects from the edge of the eye-lids, mostly near the great angle of the eye. This little tumour is of a dark red colour, much inflamed, and a great deal more painful than might be expected, considering its small size. It arises suddenly, as if from a cold or sting of an insect, and after some days, or perhaps weeks, suppurates or forms matter of a thick or cheesy consistency. It is occasioned by an obstruction in the glands of the eye-lid, and the matter being enclosed in a hard cyst or bag, the inflammation often returns in the same spot, till the cyst being destroyed by repeated suppurations, the cavity is afterwards filled up, and the complaint disappears.

Treatment—The sty, like other furunculus inflammations, forms an exception to the general rule, that the best mode in which inflammatory swellings can end, is *resolution*, (or a termination of the inflammation without any abscess or suppuration.) This event would rather be injurious than effectual in this disease, as there would still remain behind, a greater or small portion of dead cellular membrane; which, sooner or latter, might bring on a renewal of the sty in the same place as before, or perhaps become converted into a hard indolent body, deforming the edge of the eye-lid. The best plan of treatment, is when the inflammation and redness is considerable, to apply a light poultice of warm bread and milk to the part, which can easily be done by confining the poultice between too fine cloths; this will cause suppuration to take place much sooner than it otherwise would do.

All that is necessary to prevent the return of this temporary blemish, (which is very injurious to the eye,) is to touch the little abscess, as soon as it breaks, with *lunar caustic* cut to a point (carefully avoiding doing injury to the eye,) one or two slight touches with this by destroying the cyst, prevents a return of the disease.

When the sty is small, or hangs by a very narrow base, it may be safely cut off, or tied very tight round its root with a silk thread, which will cause it to drop off in a day or too without bleeding.

DEAFNESS.

Infants, and children of a few years old, are frequently rendered deaf, in one or both ears by very slight colds, and at the expiration of a few days the hearing returns, without using remedies. It is, however, sometimes otherwise, and it becomes necessary to use a little purgative medicines, and to confine the child to the house. When this does not succeed, it is likely the disease originates from indurated wax, and it will be proper to instil into the ears a drop or two of the oil of almonds on going to bed, and the next morning syringe the ears with warm water, to which may be added a small quantity of castile soap, which will have a tendency to dissolve the wax.

Deafness, however, is sometimes owing to debility of the auditory nerves, (see page 102;) when this is the case, the hearing will not be restored by the above remedies; and it will be proper to establish an issue in the back of the neck, as recommended in the article on *cataract*. It will also be proper to use strengthening remedies, such as the sweet spirit of nitre in cases of infants; in older children the rust of iron may be given in doses of five or six grains once a day.

ACCIDENTAL DISEASES OF CHILDREN.

There are a number of diseases which may occur in infants and children, which require surgical treatment, such as wounds, burns, abscesses, &c., the treatment of which may be found in the third part of this work, under the head of surgical diseases, or diseases requiring surgical treatment.

PART II.

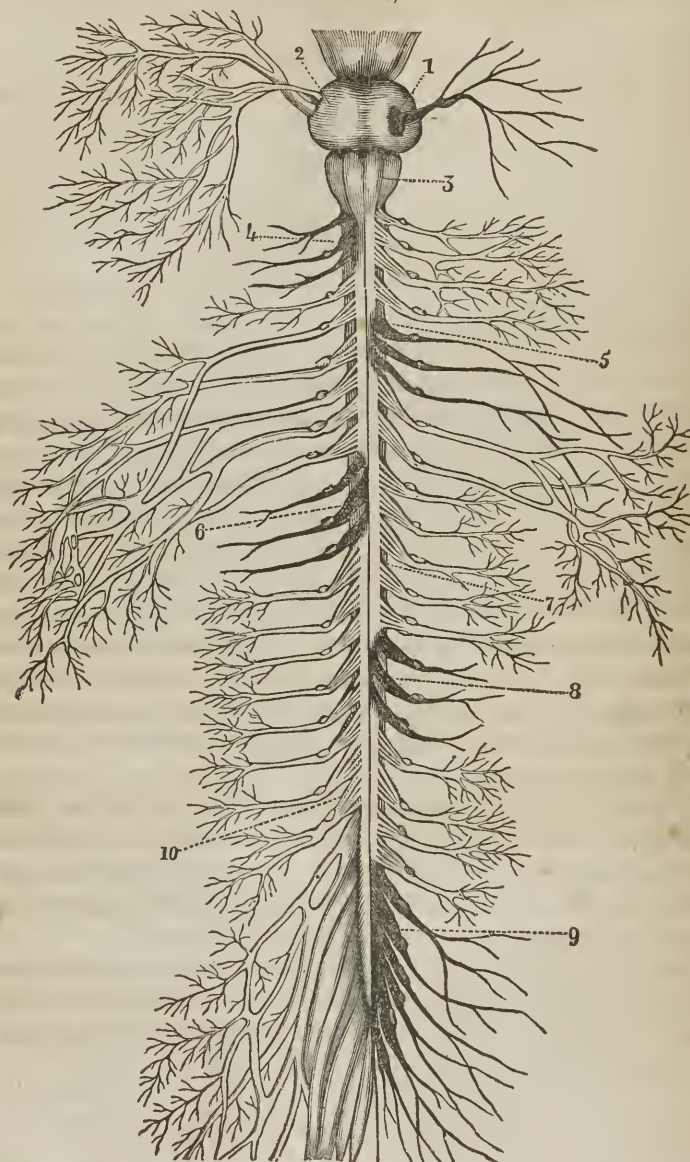
NERVOUS DISEASES.

HAVING arrived at this part of our work we purpose offering a few suggestions relating to the cause of those distressing nervous affections to which so many of the human race are subject; and for the purpose of ascertaining a correct knowledge of the cause, we must call the attention of our readers to the source from which the nerves originate, (this being the spinal marrow;) and when we consider the delicacy of its structure, and its similarity to the structure of the brain, we expect to find it liable to numerous diseases, similar in their nature to the diseases of the brain: and when we have examined the numerous nerves that proceed from it to different parts of the body, we conclude that its diseases must have an extensive influence in the production of nervous affections. They open an interesting field of investigation, and, if prosecuted in a cautious and philosophical manner, promises important results in the pathology of many diseases hitherto involved in much obscurity.

It is our intention to examine the cause which we believe gives origin to those nervous diseases under three heads: first, disease of the spinal marrow; second, disease and softening of the bones of the back or spine; and, third, of disease of the spinal bones accompanied with curvature of the spinal column.

For the purpose of elucidation we have inserted a plate on the following page, exhibiting the spinal marrow and nerves in a diseased condition, to which we would call the reader's particular attention when studying this part of the work.

THE SPINAL MARROW AND NERVES, IN A DISEASED CONDITION.



EXPLANATION OF THE PLATE.

- 1 Represents the uppermost part of the spinal marrow and nerves in a diseased condition.
- 2 The spinal marrow and nerves on the opposite side of the face and head in a healthy condition.
- 3 The spinal marrow in health.
- 4 The spinal marrow and upper *cervical* nerves diseased.
- 5 The lower cervical nerve diseased.
- 6 The upper *dorsal* nerves diseased.
- 7 A healthy condition of the lower *dorsal* nerve.
- 8 A diseased condition of the *lumbar* nerve.
- 9 Disease of the *sacrum* nerves.
- 10 Represents the *lumbar* nerves in health.

For further explanation, see the symptoms produced by the disease in different parts of the spinal marrow.

DISEASE OF THE SPINAL MARROW.

By the ancient physicians much importance appears to have been attached to the spinal marrow as a seat of disease, especially in convulsive and paralytic affections. Alexander Trallian (a learned and ingenious physician, who flourished at Rome about the middle of the sixth century) went so far as to assert, that paralysis of the limbs had its origin in the brain, only when it was accompanied by paralysis of some part of the head, as the eyes or tongue; and that, when not accompanied by paralysis of any of these parts, it always proceeded from disease of the spinal marrow. It could not be expected that a physician, living in the age in which doctor Trallian lived, could have had much knowledge of the human body from dissection, as physicians at that time were strictly prohibited by the Roman law, from making dissections of the human body.

In this country, notwithstanding the ample privileges we possess, the subject has not been investigated, or at least there has not been any thing published upon it to our knowledge. We have, indeed, heard medical men speak of the subject, but so far as we have been able to ascertain, they have treated the disease in the way of supposition or ingenious conjecture, rather than cautious investigation. By the European surgeons, however, many important facts have lately been related, which throw considerable light upon the pathology of this important organ; and we shall take the liberty of making several extracts from their publications, for the purpose of showing that we do not stand altogether alone in regard to our opinions and observations.

Notwithstanding we have had numerous opportunities of attending to the symptoms of the disease, and also the appearances produced in the various organs of the body after death, by the disease of the spinal marrow and nerves, together with their treatment in this city and surrounding country, we purpose to attempt but a very general outline of the subject, and we flatter ourselves with the hope, that the present imperfect state of our knowledge of the disease, and the involved and vague nature of every subject connected with nervous affections, will serve as a sufficient excuse for our brevity; and we wish it to be recollected, that we

intend this work merely for the use of parents and nurses ; and a lengthy or complicated discussion on the subject would not be likely to be profitable to them ; we trust, however, that the few practical remarks which we shall find necessary to make, will cause a further investigation of the disease.

For the purpose of rendering the subject plain, it will perhaps be best to arrange the symptoms according with the diseased appearances of the spinal marrow exhibited by the plate. In the first place, however, we will describe the first and most general symptoms attending the chronic form of the disease.

CHRONIC DISEASE OF THE SPINAL MARROW.

The first and most general symptoms of chronic disease in the spinal marrow are very distinct, but the complications are very various, and sometimes predominate over the other symptoms to such an extent as to resemble other affections, and thus attract the attention of the sufferer or his physician from the true cause or seat of the disease. This affection, even in its more acute form, comes on insidiously, and the patient becomes gradually and insensibly incapacitated for exertion, either of mind or body. This state of things may perhaps endure for many months or years, before it attracts the serious attention of the patient or his friends ; and when the patient does begin to complain, the disease will be characterized by a general feeling of weakness, with tremor, headach or vertigo, fluttering or palpitation of the heart, faintness, sometimes profuse perspiration on the least exertion or surprise, at others there will be a disposition to fever, a susceptibility to hurry and agitation, weariness, aching, and loss of strength.

Soon after the commencement of disease of the spinal marrow, the countenance is observed to have become rather pale and thin; the lips are pale, and, together with the chin, are frequently observed to tremble on speaking. There is an early, but very slow and gradual emaciation ; and it is interesting to remark, by weighing the patient first, the still continued progress of the loss of flesh for a time ; and then the cessation, and lastly, the restoration from this fearful morbid process, on the institution of a correct mode of treatment.

Disease of the uppermost part of the Spinal Marrow.

Disease of the upper part of the spinal marrow and nerves represented in the plate by 1, produces the following symptoms, namely, a dull heavy sensation in the head, confusion of the ideas, and loss of memory; there is often a peculiar sensation of tingling or numbness in the head, and not unfrequently impaired vision; the hearing is almost always dull, a palsy or shaking of the head, and in some instances a partial loss of speech occurs. These symptoms may exist and be borne with for years without much inconveniency, but at length they assume a more distressing form, the individual may be attacked with violent pain of a neuralgic nature, and will complain at times of a deep-seated pain in some part of the head. His memory will be greatly impaired, and in some cases a partial paralysis of one limb takes place, in others a complete coma occurs, often followed by convulsions.

From what I have been able to observe the disease of this part of the spinal marrow takes place much less frequent than it does in other parts of the organ.

Disease of the Cervical region of the Spinal Marrow.

Disease in this part, as represented in the plate by 4, produce swellings about the neck; they may be either internal or external, the face has often a bloated appearance, and the skin of a livid or pale colour, the blood-vessels about the throat and windpipe are enlarged, often producing a disagreeable cough, and not unfrequently an obscure feeling of pain or uneasiness in some part of the chest. Disease in this part may also cause pain in the arms, and generally a sensation of tingling or numbness in the extremities of the fingers.

At a more advanced stage of the disease the cough becomes violent, and is attended with a peculiar spasmodic action of the chest, the breathing during a fit of coughing being stridulous, as in croup, and is frequently attended with an abundant secretion of a viscid transparent spit, occasionally mixed with a small quantity of blood.

After this state of things has existed for a time, the patient may be attacked with difficulty of breathing, as in asthma, often ac-

accompanied with slight fever and perspiration in the night or towards morning ; at length ulceration of the lungs takes place and consumption ensues.

Disease of the Spinal Marrow in the lower Cervical region.

Disease in this part, as represented by 5, gives rise to all the symptoms of disease of the heart without it actually being the case. The action of the heart will be irregular, sometimes the organ beats tumultuously and indistinctly, at others it seems to be in a state of tremulous agitation ; syncope or fainting fits is a frequent symptom of disease in this part of the spinal marrow.

The patient will be liable to occasional attacks of partial faintness of long continuance, during which he experiences a feeling of oppression and constriction in the region of the heart, and a partial loss of consciousness and censorial powers, and inexpressible anxiety. It is by no means uncommon to hear patients who have diseases in this part of the spinal marrow, complain of pains in the region of the heart, resembling rheumatic or neuralgic affections, and which are too frequently set down by inattentive practitioners as organic disease. Sometimes these pains are confined to this spot, but frequently they extend over a greater or less proportion of the lungs and stomach. Sometimes they exist simultaneously in the superficial cervical plexus, and extend along the tract of the branches of nerves supplied by this to the anterior part of the thorax ; still more frequently at the very time they are felt most severely in the heart, they shoot with corresponding violence along the nerves of the *axilla* plexus, and more particularly along the nerve of the arm to the elbow, and sometimes as far as the fingers.

Disease of the Spinal Marrow in the Dorsal part.

The symptoms produced by disease in this part of the spinal marrow, as represented by the figure 6, are more complicated, and attended with more desperate results than the disease of any other part of the organ. We will make this appear evident when we come to describe the effects which are produced by the disease of the spinal marrow in the various organs of the body. The patient labouring under disease of this part, will complain of ir-

regular appetite, and impaired powers of digestion, flatulence, severe colic pains, occasional nausea and vomiting, and a sense of fulness in the region of the stomach. In many cases, a deep-seated dull pain is felt in the right side, accompanied in some instances with a dragging sensation in the right shoulder. The white of the eyes, and skin of the face, neck, and breast, become tinged with a yellowish appearance, and the bowels will always be irregular, costiveness being the most common, alternating in some instances with diarrhœa. At a more advanced stage of the disease a complete state of emaciation and debility will take place.

Another very common symptom of the disease (especially in young persons) is irregular fits resembling epilepsy; melancholic, and complete insanity is no uncommon occurrence in disease of this part.

Disease of the Spinal Marrow in the Lumbar region.

Disease of this part, as represented by 8 in the plate, often causes great weakness in the small of the back, so that the patient will not be able to sit up long without being much fatigued: there will also be pain in the muscles of that part resembling what is called lumbago; there may also be disease of the kidneys, together with many distressingly painful affections of the organs of the body in that vicinity, especially in females. The figure 9 in the plate represents the sacral nerve, or those which are distributed through the lower extremities, causing when diseased, pain and swellings of the joints, producing all the symptoms of gout or rheumatism; there will be weakened, and often partial paralysis of the lower limbs.

Disease in this part also often causes a determination of blood to the head, and not unfrequently apoplexy; at a more advanced stage of the disease, palsy of the lower limbs may occur, attended often with distressing spasmodic pains in the feet, at other times there may be a peculiar numb sensation of the lower part of the body.

Remarks on the Symptoms of Disease of the Spinal Marrow.

Notwithstanding the symptoms enumerated above may all be produced by the disease of the spinal marrow, it is equally cer-

tain that they may be produced by other causes, altogether independent of the spine or its contents. My object in enumerating the symptoms so fully in this place, was not only because I believe that many of those distressing nervous diseases to which so many of the human race are subject, could be removed by a proper mode of treatment, but because I believe there is more injury done in this city and country, so far as I have been able to ascertain at the present time, by improper treatment, or treatment applied for supposed disease in that part, than there is benefit resulting from it. In fact, it is almost an every day occurrence with me, to find persons incarcerated in the recumbent posture, for months perhaps, undergoing treatment for disease of the spine, when the only cause of their slight indisposition or pain, had originated from the want of active exercise in the open air. One consequence of this indiscriminate and indiscreet practice is, that it has given birth to some curious quackery; and the reader need not be surprised if he is told, that there have been cases of the disease of the spine and spinal marrow cured in a day or two merely by washing, or greasing the back with some favourite liniment; and it is altogether unnecessary to employ the remedies usually recommended by physicians, (who understand the nature of the disease,) since a liniment is all that is necessary for the removal of caries in the bones of the spine, or softening of the spinal marrow, whilst in less important and less complicated parts require the aid of the most active remedies. But I must inform my reader, that if he is so unfortunate as to be labouring under the disease described above, he will find that it will require more to restore him, than what a quack or indiscriminate physician is able to prescribe; and we trust that from what we have already said, and from what we shall hereafter have to say when describing the effects of the disease of the spine, and its contents and appendages, that he will be sufficiently acquainted with the symptoms of the disease to detect any error or imposition that may be attempted, either by improper interference, or trusting too long to an inert remedy.

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*Effects and appearances produced in the various organs of the body by
Disease in the Spinal Marrow.*

It is well known to every surgeon who has a proper knowledge of the complications of the human body, that the nervous system of man is composed of two different species of nerves; one of which exert their influence over the organs of animal life, or in other words, they are under the control of the will,—they are the nerves of sensation and motion; they originate in the brain.

The other species exert their influence over the organs of organic life, such as the lungs, heart, and blood vessels in every part of the body. They are not under the control of the will, but are one of the principal causes of the circulation of the blood. They originate in the spinal marrow, and are distributed to every part of the body. It is this species of nerves which we have exhibited in the plate, when they are weakened by disease at their origin, or interrupted in their courses through the body. They do not exert a sufficient influence upon the organs to which they are distributed, producing the effects and appearances which we are about to relate.

It is not presumed that our views as regards the use or distribution of the nerves will be doubted; but for the purpose of strengthening our opinions, we will make a short extract from the writings of Edward Harrison, M. D. President of the Royal Medical and Physical Societies of Edinburg. He observes, “By experiments performed upon living animals, we learn that these several organs continue to execute their appropriate functions long enough after all connexion with the brain has been destroyed by decapitation, to induce us to believe that they derive their prominent energy from a different source. This seems to be the spinal marrow; for when it is removed, the abdominal and thoracic organs soon cease to act. We are therefore led to conclude that, although the animal functions are performed by the brainular nerve, those of organic life, or such as are only intended to support the machine, are executed by the spinal nerves.”

With this view of the subject, the reader will see how a healthy disposition of the spinal marrow and nerves are indispensable to the well-being of an individual.

The dark appearance on the different parts of the plate repre-

sent disease; it may have been produced by a softening of the spinal marrow, and a congested condition of the blood vessels, or an effusion of matter into the part. When this has taken place, the nerves originating in the diseased portion also become relaxed, and not being able to perform their office in causing the blood to circulate, there is a torpid and enlarged, or congested state of the blood vessels in every part to which they are distributed, causing a soft or dropsical condition of the parts.

For the purpose of conveying a correct idea of the disease, we will relate two or three cases in which we found the appearances which are represented by the plate.

Case 1. — — — in his thirty-fifth year, spare habit of body, tall, chest remarkably narrow, had been engaged at the tailoring business until he arrived at his twenty-fifth year, when he became unwell with a severe cough and general debility. His physician at that time advised him to give up his business, as he was in danger of consumption. During the last ten years he has been continually troubled with the cough, and had been told repeatedly that he was labouring under consumption of the lungs. Nothing unusual, however, was observed, till about two years before his death, (which occurred in June, 1837) when he complained of difficulty of breathing, and occasional violent palpitation of the heart, for which he consulted a physician, and was told that he had organic disease of the heart, and must have sixteen ounces of blood taken from the arm. This treatment so completely prostrated him, that he has not been able to get out of his chamber since. In consequence of his physician giving him over as incurable, I was consulted, and seen him occasionally during the remainder of his life. The symptoms have been, violent palpitation of the heart; most distressing sense of sinking on the approach of sleep, and starting after it had come on; cough severe, and recurring in paroxysms, copious expectoration of a thin whitish matter; difficulty of breathing, constant and occasional severe palpitation, and towards the last considerable fever. The digestive organs continued healthy to the last, and a small quantity of food was relished on the day of his death. A full meal, however, always produced distressing sensations of sinking,

and was thrown off on the occurrence of the first paroxysm of coughing.

Dissection. Ten hours after death. Body much emaciated; heart, liver and stomach apparently healthy; the lungs, especially the left lobe, nearly one-third longer than usual, and in a highly congested condition; the blood vessels being one-half longer than is usually discovered in the lungs; they also appeared to be much softer than common, and the air cells were filled with a tenacious fluid resembling the serum of the blood, but not the least appearance of ulceration, or what is usually termed consumption of the lungs.

The brain was also examined, and found in a natural condition. The spinal column was completely opened, and the membranes and nerves, together with part of the spinal marrow as far as the third cervical vertebræ, were found to be completely congested with blood; and although the branches or ramifications of the nerves through the lungs could not, from the confusion of parts, be distinctly traced, there was sufficient evidence to show that they were in a similar condition to what they were at their origin in the spinal marrow. We have made several dissections in cases where death was caused by consumption, and found in many of them the same appearances as stated above, and represented by 4 in the plate; and we have had numerous cases where the patient had every symptom mentioned in the above case, some of whom had been told by their physicians (men of high standing in the profession) that they were in the last stage of consumption, and could not survive more than two weeks; yet they have been restored to perfect health by applying proper treatment for disease of the spinal marrow.

We shall have occasion to relate a few cases of supposed consumption, when describing the treatment which has been found to be successful in the removal of disease of the spine and spinal marrow; and we trust the time is not far distant, when cases resembling consumption will receive a different and more successful treatment than formerly. There is not the least shadow of doubt existing in my mind, but the case related above would finally have terminated in consumption, had the patient lived a short time longer; and I also believe that had the proper remedy

been employed at the time he was bled for supposed disease of the heart, his life might have been at least prolonged.

For further information on this subject, see extracts made from Dr. Abercrombie's publication, under the head of the acute diseases of the spinal marrow.

Case 2. Of disease in the dorsal part of the spinal marrow. The patient whose case we are about to relate, — — — in the seventieth year of his age, followed a sedentary employment for a number of years. When interrogated as to his former state of health, he informed us that he had twice suffered from the intermitting fever. Eight years ago had a severe attack of illness, the nature of which was debility with pains in his extremities. He had resided two years in Philadelphia, and had enjoyed tolerable health, with the exception of general debility, and for about eighteen months he had a peculiar sensation in his stomach, which, he had been told, was disease of the liver; in consequence of which he consulted a physician, and was advised to take a large dose of calomel, which salivated him and caused much debility. On the first of May, 1835, he was again attacked with severe pain in his extremities, together with palpitation of the heart, and an alarming bowel complaint, though his bowels for the last ten years had been very much constipated. In consequence of this attack, I was requested to visit him for the first time, and found him labouring under the following symptoms: He complained of irregular appetite and weakness at the stomach; flatulency; slight colic pains; occasional nausea, and inclination to vomit; constant *diarrhœa*, and extreme debility. No distinct pain was produced in the region of the stomach or liver by pressure. The white of his eyes and skin of the face, neck, and breast, were of a yellowish hue, and his countenance bore a contracted and sickly aspect. He had also a short dry cough with slight difficulty of breathing, and considerable palpitation of the heart, but no fever. In a few days he died, apparently with debility.

Dissection. About ten hours after death, on laying open the cavity of the abdomen, the liver was found to be enormously enlarged, and particularly in the right lobe; it had pushed up the diaphragm, encroaching considerably on the right cavity of the

chest, and was of rather a light colour; when cut into it was found to be in a dropsical condition, the blood vessels being twice their usual size, and the substance of the liver itself completely softened and filled with matter. The bowels were also in a congested condition, and traces of inflammation could be distinctly seen; the lungs were apparently in health, but when the spinal column was opened an astonishing mass of disease was presented to our view; three or four inches of the right side of the spinal marrow in the *dorsal* region (as represented on the plate by 6,) was softened almost to the consistency of matter, and the nerves which organated in it was also soft and almost obliterated; they were traced, however, to the liver; the bones of the spine were in perfect health. We have reason to believe from what we have seen, and from the effects which have been produced by remedies, that many cases of disease of the liver originate from this cause; the reader, therefore, will not be surprised at the number of cases of the kind which have not yielded to the common remedy used for liver complaints; in fact, the common remedy (mercury) when used in cases of this nature, cannot fail in doing injury, by producing greater irritation in the organ.

ACUTE DISEASE OF THE SPINAL MARROW.

We have already stated that even the acute form of this affection often came on insidiously, but as there are many instances where it attacks suddenly, and as the treatment which would be proper in the chronic form of the disease would be almost useless in an acute attack, we thought it advisable to make the distinction. It is our intention in describing the symptoms in this division of the subject to make use of Doctor J. Abercrombie's* *Observations on Diseases of the Spinal Marrow*, which will answer the purpose not only for conveying a more correct idea of the nature and symptoms of this desperate malady to the reader, than any thing that we could advance; but will also serve as a shield from the sneers and criticism of that class of physicians who do

* Fellow of the Royal College of Surgeons, Edinburgh.

not believe in the existence of the disease, or from want of information, consider it a new one. That we have such a class of physicians in this city and surrounding country, is well known to many of our readers. We mention it, however, not in the way of reproach, but as a matter of regret, and the reader will not be surprised at their incredulity, when he is told, that the doctrine which has been taught in this city during the last forty years, by a class of men, too, from whom we might have expected better things, has been of such a nature as to cause the student to believe that all the disease to which the human body was liable originated in the stomach and bowels, and that it was altogether unnecessary to look for a cause in any other quarter; before the days in which this doctrine was promulgated, nervous affections were treated with bitters, tonics, and mineral waters, together with country air and exercise, but those teachers could see nothing in this class of diseases, but chronic inflammation of the *gastro-intestinal mucous lining*, requiring no other treatment than leeches, gum-water, and starvation; but experience, sad experience, has taught those teachers and many others, both in the city and country, that other parts of the body as well as the stomach may be the seat of disease, yea, more, that diseases in other parts of the body was the cause of disease of the stomach and bowels.

One result of this indiscriminate doctrine and practice was, that patients labouring under chronic nervous affections, such for instance, as what is termed dyspepsia, gout, and rheumatism which may have originated from a cause remote to what they considered the seat of all disease, were not benefited by the treatment prescribed by their physicians, such as starvation and gum-water, and as a matter of course were obliged to seek relief in some other quarter—this was the daily papers, where they found remedies advertised and warranted to cure all diseases; hence originated the abominable and destructive quackery now practised upon the credulous in this city and surrounding country by men who have no knowledge of the structure of the human body, or the nature of medicine, more than it will deprive the sufferer of his natural feelings for a time, and the sufferer himself for the sake of momentary relief will swallow the destructive dose daily until he is completely disordered or perhaps no longer able to procure it.

We have perhaps pursued this subject as far as propriety will permit, as our readers may not be aware of the great importance attached to it, but we trust it will appear rational when we come to speak of the cause and treatment of disease of the spinal marrow.

It affords us much pleasure in being able to furnish our readers with Doctor Abercrombie's observations upon the subject, as his character and standing as a physician must be well known to the faculty. (We must, however, confess that we did not know that the subject had ever been investigated by him or any other physician when our attention was first called to its investigation.) He observes, in describing his first case, "The following remarkable case I did not see during the life of the patient, but I was present at the examination of the body.

"Mr. K. aged 26, had been for several years liable to suppuration of the left ear. It usually discharged at all times a little matter; but he was also liable to severe attacks of pain, followed by more copious discharges. The pain on these occasions extended over the left side of his head, and often continued for a week with much severity. In the first week of April, 1817, he was confined from his usual employment by pain of his head, affecting both the forehead and the occiput. He was in bed part of the day, but set up during a considerable part of it, reading and writing; his appetite was bad, and his sleep disturbed; but there was little or no frequency of pulse, and for a week the complaint excited little attention. About the end of the week he complained of the pain extending down his neck. In the second week of his illness the pain in the head nearly ceased, but the pain of the neck became more severe, and extended further down along the spine. It continued for several days to extend further and further down, till at last it fixed, with intense severity, at the lower part of the spine, from which it extended round the body, particularly to the spinous process of the *ilix*.

From the time when the lower part of the spine became so much affected, he never complained of his head, and seldom of the upper part of the spine, but he became affected with great uneasiness over the whole abdomen.* From the violence of those

* Region of the Bowels.

complaints, his sufferings about the 15th, became extreme; he could not lie in bed for five minutes at a time, but was generally walking about his house in extreme agitation, grasping the lower part of his back with both his hands, and gnashing his teeth from the intensity of pain. He had no interval of ease, and was sometimes incoherent and unmanageable. On the 16th he went to the warm bath, walking down three stairs and into an adjoining street with little assistance. After his return, he thought himself somewhat relieved, but the pain soon returned with its former severity, accompanied by great pain in the belly, confusion of thought, and some difficulty of articulation. The pulse was about 100; the bowels were easily kept open by the ordinary purgatives. On the 17th, the symptoms were unabated. In the course of that day, some squinting was observed, but it was not permanent. His speech was considerably affected; there were convulsive twitches of the face, and some difficulty of swallowing. The pulse was from 120 to 130; at night some blood was taken from his arm, after which he became easier, and lay in bed some time. After a short time, however, he got up again, and continued until three o'clock in the morning, sitting up, or walking about the house, tearing off his clothes, delirious and unmanageable. About three o'clock he suddenly threw back his head with great violence, and fell into a state of coma, in which he continued for two hours and died.

“*Dissection.* After the most careful examination, every part of the brain was found to be in the most healthy state. On taking out the brain, some gelatinous matter was found under the medulla oblongata,* and purulent† matter appeared in considerable quantities flowing from the spinal canal.‡ On cutting across the spine about the fourth cervical vertebræ,§ purulent matter still flowed from the lower part of the canal, in consequence of which I laid open the whole spine down to the sacrum, by cutting the vertebræ on each side of the spinous processes. I thus discover-

* The uppermost part of the spinal marrow.

† A whitish, bland, cream-like fluid or matter.

‡ The opening through which the spinal marrow passes.

§ The fourth joint from the head, forming the spinal column or back bone.

ed the spinal marrow through its whole extent covered with a coat of purulent matter, which lay between it and its membranes. No place could be detected in which it seemed to have been formed in such quantities as to have flowed over the other parts, but it was distributed with such uniformity, as gave it the appearance of having been produced by the disease extending gradually over the whole cord. It was, however, rather more abundant at the places, at the upper part of the canal near the foramen magnum, about the middle of the dorsal vertebræ, and at the top of the sacrum. The substance of the spinal marrow was remarkably soft, and in some places much divided into filaments. All the viscera were sound."

The above case was undoubtedly one of long standing, and had it not been for the discharge from the ear, which the Doctor mentions as having taken place several years before the patient's death, it undoubtedly would have been attended with more desperate results, and was the cause of the preservation of the spinal marrow and organs of the body. The following case mentioned by him may be considered as more acute.

Case II. "I add the following from Mr. Charles Bell, as an example of the disease produced by external violence. A waggoner sitting upon the shaft of his cart, was thrown off by a sudden jar, and pitched on the back of his neck and shoulders. He was carried to the Middlesex Hospital, where he lay for a week without complaining of any thing except stiffness of the back part of his neck. He could move all his limbs with freedom. On the eighth day after his admission, he was seized with general convulsions and lock-jaw. After a few hours he was affected with a singular convulsive motion of the jaw, which continued in a state of violent and incessant motion for about five minutes. This was followed by maniacal delirium. He then sunk into a state resembling typhus fever; and, after four days, was found to be paralytic in his lower extremities. He lived a week after this, but continued sinking, and still retained about him much of the character of typhus. The day before his death he was perfectly sensible, and had recovered sensation in his legs, for he could feel the rubbing of a finger upon them.

"On dissection, a great quantity of purulent matter was found

within the spinal canal, which had dropped down to the lower part of it. It appeared to have been formed about the last cervical and first dorsal vertebra; there the intervertebral cartilage* was destroyed, so that the pus had escaped outwards among the muscles."

Case III. "A woman, aged 23, who had suffered considerably from disease, was seized with a severe quotidian intermittent,† which proved very tedious, and resisted all the usual remedies. After some time, it was accompanied by pain in the lumbar region, diarrhœa, termia, tenesmus, general debility and emaciation. About three months after the commencement of the fever, she began to be affected with weakness, and convulsive motions of the left lower extremity, resembling chorea.‡ In walking the leg was dragged, and if she attempted by a strong effort and greater degree of motion, it was thrown into convulsive distortions. Soon after, the left arm became affected in the same manner, and there were also convulsive motions of the face and eyes. At this time the complaints in the bowels continued, but ceased soon after; the other symptoms increased. The difficulty of moving the limbs soon amounted to nearly complete paralysis, and to this were added difficulty of articulation and diminution of memory. These terminated in loss of speech, coma, and death, which was produced by general and horrible convulsions. Her death happened rather more than a month after the commencement of the convulsive affections of the leg. On *dissection*, some serous effusion was found in the thorax and in the ventricles of the brain. The spinal marrow was soft and flaccid, and to a considerable extent suppurated. Its investing membranes was in many places covered by a puriform fluid; there was also serous effusion in the spinal canal."

Case IV. "A man, aged 40, was received into the Hospital of Crema in the spring of 1804, with no other complaint but general weakness and depression, for which no cause could be assigned. He lay constantly in bed, but complained of no pain; his

* A small membrane placed between the joints of the spine.

† Intermitting fever or ague.

‡ St. Vitus's dance.

appetite was good, and he was free from fever. Suspicion being entertained that he was feigning, threats and entreaties were used to induce him to exert himself, but in vain. Meanwhile, from being lean and pale, he became fat and ruddy. Thus he continued through the summer and winter. As winter approached he lost his appetite, and became lean. In February, 1805, he became completely paralytic both in his legs and arms, and died in March. On *dissection*, all was sound in the head, the chest, and the abdomen. In the spinal canal there was much effusion of bloody serous fluid, with marks of inflammation and suppuration in the spinal cord, the substance of which was remarkably soft, and tending to dissolution."

Case V. "A young soldier who had lately recovered from a fever, was affected with pain in the dorsal vertebræ, difficulty of moving the lower extremities, general debility and emaciation. A variety of practice was employed for several months without relief. The weakness of the lower extremities increased to complete paralysis, and soon after, the superior extremities became affected in the same manner; he then lost his speech. After lying a fortnight in this state, completely immovable and speechless, but in possession of his intellectual faculties, he died suddenly. On *dissection*, there was found no trace of disease in the brain, the thorax, or the abdomen. The spinal cord was inundated by a great quantity of serous fluid. The cord itself was suppurated, dissolved, and disorganized at the lower part of the dorsal region, above this it preserved its natural figure, but was very soft. Its investing membranes and the periosteum lining the canal of the vertebra, were destroyed at the part where the cord was so much diseased; the vertebræ and their linings were sound."

The following case related by Portall, shows another modification of the disease. A woman had been long subject to a convulsive affection of the left lower extremity, immediately before she became unwell. This occurred at every period of her sickness. After some time she was affected with convulsions of the left arm, and soon after died. On *dissection*, the membranes of the spinal cord were found in a state of inflammation at some of the last dorsal vertebræ, and first lumbar. The spinal marrow

itself was red and soft on the right side; on the left it was sound through its whole extent.

Doctor Tutenent refers to the case of a man who died of continued fever, after having been affected in the course of it with paralysis. The right kidney was found black, and the spinal marrow on the side affected in the same manner.

The Doctors remark: "When we review the phenomena which have been observed to accompany most diseases of the spinal cord, we find affections of all the principal organs. In the parts connected with the head and back, we find distortion of the eyes, convulsive affections of the face, difficulty and loss of speech, loss of voice, and difficulty of swallowing. In the viscera of the thorax,* there have been observed palpitation and oppression of the heart, painful sense of stricture in the region of the diaphragm, and difficulty of breathing, which, in some cases, have been permanent, and in others have occurred in paroxysms like asthma. In the organs of the abdomen and pelvis,† we find vomiting, pain of the bowels resembling colic, diarrhœa and tenesmus. In the muscular parts are observed convulsions and paralysis; (the convulsions, in some cases, resembling chorea, ‡ in others tetanus.§) In the intellectual functions, loss of memory, delirium, and coma. In the present state of our knowledge, we are by no means prepared to say, that all those diseases produced from the affection of the spinal marrow, especially as we observe remarkable diversities, and considerable want of uniformity in the symptoms. This is most remarkable in the affections of the voluntary muscles. In some cases we find both convulsions and paralysis; in others, paralysis without convulsions; and in one very severe case above described, there occurred neither convulsions nor paralysis.

"We observe similar varieties in the affections of the other organs, and the particular organs that are affected, do not appear to depend invariably, as has been supposed, on the part of the spinal cord which is the seat of the disease. The laws which regulate these divisions remain to be investigated by further observation."

* The lungs and heart.

† The liver, bowels, and kidneys.

‡ St. Vitus's dance.

§ Lock jaw.

We extract the following very interesting cases from the same author, as we will have occasion to refer to cases of the kind when speaking of the treatment. They may be considered as accidental, and may frequently occur. We would more particularly call the attention of the reader, as in accidents followed by symptoms of the kind attending these are generally attributed by physicians to injury done to the brain, in consequence of which they would be likely to prove fatal.

Case VI. "A young lady, aged 14, whose case is related by M. Chevlér,* had been for several days affected with pain of the head and back. The pain of the head was relieved by blisters and purgatives; the pain of the back increased, and was accompanied by a tendency to sickness on sitting up; at the end of a week, there was a sudden and violent aggravation of the pain, followed by general convulsions, in which she continued between five and six hours, and then expired. On *dissection*, the spinal canal † was found filled with extravasated blood in the lumbar vertebræ, which had been the seat of the pain; the brain and all the viscera were sound."

Case VII. "A miller, in lifting a heavy sack, suddenly lost the use of his lower extremities. He died in fifteen days. Extravasated blood ‡ was found, mixed with serous matter, in the vertebral canal; the membranes were inflamed, and the nerves of the cauda equina § appeared rotten, as if they had been long macerated in putrid water."

Case VIII. "A man received a violent blow on the three inferior lumbar vertebræ, by a log of wood which fell upon him. He died in four hours. Extravasated blood was found in the spinal canal; the vertebræ were entire, and the spinal marrow appeared to be healthy."

Case IX. "A boy 14 years of age, received a violent jerk of his neck by a cord which was thrown over his head, as he was swinging forward in a swing. He felt no bad effects at the time; but

* Medico-Chirurgical Transactions, Vol. III, p. 102.

† The opening through which the spinal marrow passes.

‡ Affused blood from the rupture of a vessel.

§ The nerves of the lower extremities.—See plate and 9.

after some time he was observed to be weak and inactive. He became gradually more and more inactive, and had stiffness of the neck, and difficulty in moving his head. Nine months after the accident, the weakness of his lower extremities increased to paralysis, which was speedily followed by paralysis of the arms, with suppression of the evacuations of the bowels. He had been a short time in this state, when he was seized with very violent pain in the spine; it was of short continuance, but after that time he became rapidly worse. His breathing became quick, and was performed with an effort. This was first observed only during sleep, but afterwards continued while he was awake. After suffering from it severely for one day, he died. His death happened about ten months after the injury, and a few days after the violent attack of pain in the spine."

"The only morbid appearance that is mentioned as having been observed on dissection, is a great quantity of extravasated blood in the spinal canal. It lay between the bone and theca vertebrælis.* It was partly coagulated and partly fluid, and appeared to have come from the upper part of the spinal canal, about the second and third cervical vertebræ."

We copy the following case for the purpose of convincing our readers, that diseased action may be going on in the spinal marrow for a length of time without causing death, or any very serious inconvenience.

The Doctor observes, in speaking of accidental injuries to the spinal marrow: "It may produce permanent paralysis. This may take place immediately, or the first effects of the injury may be removed, and a new diseased action take place after a considerable time. The slight nature of the first symptoms, in such cases, and the slowness of their progress, will be illustrated by the following case. Robert Bain, aged 43, about nine years ago fell from the branch of a tree, and lighted on the sacrum. He was carried home deprived of the power of his lower extremities, and affected with pain in the lower part of the spine. He was confined to bed about twelve days, and then recovered, so as to be able to follow his usual employment. From this time he

* The opening through which the spinal marrow passes.

was affected with a peculiar feeling of numbness, which was confined to the upper part of the left foot. This feeling gave him no inconveniency, but it never left him. After continuing in this state for four years, the numbness suddenly extended upwards along the left leg and thigh, and was speedily followed by paralysis of those parts. After some time, he was seized with pain which stretched across the lower part of the back, and into the right thigh. This was soon followed by paralysis of the right thigh and leg. He was then confined to bed with perfect palsy* for about two years. About two years ago, he recovered as much power as to drag himself about, supported upon two crutches. He was in this state without any further improvement when I saw him four months ago. Since that time he has made considerable improvement. The disease in such cases is truly of the nature of chronic inflammation of the spinal marrow."

We trust the foregoing extracts, together with what we have said in relation to the symptoms of the chronic form of the disease, will be sufficient to convince our readers that there is such a complaint as we have been attempting to describe; and we also trust that the opinions of so great a surgeon as Dr. John Abercrombie will have sufficient influence with that class of physicians whom we have noticed, as disbelieving in the cause of disease originating in any other organ of the body, excepting the stomach and bowels; likewise to convince them that they are not properly qualified to practice until they have acquired such a knowledge of the body, as to enable them to ascertain the cause of disease. We feel confident that there is not one of our readers in this city or surrounding country, but who is acquainted with some unfortunate individual who has been labouring under some of the symptoms described above, for years perhaps, and on inquiry will be found to have used almost all kinds of medicine, and have been told that they had almost every species of disease, but have not received the least benefit from the treatment that had been used; and I will also venture to assert, that upon inquiry, not one of them will be found to say that their physician attributed their sufferings to disease of the spinal marrow.

*Palsy of one half of the body.

We may be inquired of by some of our readers, how this important subject lay unthought of for such a length of time in this country, when so much has been written on it by European surgeons. And we must confess that we are ignorant of the cause, unless it be the blind deference which medical men, in general, treat works published by men of science, and the enthusiastic ardour with which they embrace the doctrines or assertions of a favourite teacher. If medical men would only exert their own talents, which frequently lie dormant through reliance on the opinions of others, who may have formed erroneous views of subjects, or have not kept pace with science, they would be likely to be more useful. This reliance, perhaps, has caused a degree of indolence and want of industry which renders it distressing for them to call into action their own faculties; were it not so, many stars might rise to illumine us, in addition to the bright luminaries which have already shone conspicuous in the medical world. By this we do not mean to insinuate that every professional gentleman, who dares to think for himself, will certainly add to medical improvement. Not so. I only mean to say that there are men who possess genius, which, at present, through fear or on account of trusting to others, permit them to lie hid in obscurity, and which only require to be rightly directed to enable them to add to the stock of human knowledge. In fact, I have found in this city, that men of but common capacities, when they were not depending upon the opinions of others or prejudiced, and sufficiently observant and attentive, are much more successful in their practice. The bold impetuosity of fiery youth; the unchangeable prejudices of doating age; the ignorant effrontery of superstition, or the mercenary views of sordid avarice, when possessed by physicians, are all so many obstacles in the way towards the attainment of medical improvement; to which, let me add, also, as not the less frequent in this city, the insatiable thirst for vanity, or the glowing effusions of a vivid imagination, which seldom fail to deceive the unwise, and to turn them aside from the direct path to useful science. The love of truth and an ardent pursuit after it, comprise the great object which a physi-

cian should cultivate, to enable him to practise the art he professes with advantage.

When we fail in our endeavours to remove a disease, we are more apt to attribute our want of success to the impossibility of performing a cure, than to the employment of improper remedies, or to our own want of skill or discernment. We do what we have been told to do in certain cases; if this does not succeed we must desist, for we know no more; and we pay too much regard to the opinions of our instructors to dare to think of any disease or remedy which they have not named or recommended; and moreover it would be dangerous in the extreme for us to do so, for fear they might be called in consultation, and we would have to give an account of what we had been administering; and if it should not just be what they had used in similar cases, notwithstanding their patients all died, they would scold us in the presence of the patient and injure our reputation. Thus a patient is frequently lost, or left to linger under a loathesome disease, which perhaps may sometimes, however, be cured by the powerful effort of nature's swift but secret working hand.

But to guard, as much as possible, against error, it is our duty to contrast our own experience with the assertions of authors. This is the reason why I have inserted so many extracts, and this it has been my endeavour to do, as much as practicable, during the composition of this work.

It would afford me much satisfaction to give a more lengthy description of the symptoms attending the acute form of this disease. But I fear my readers, not being aware of the importance of the subject, might think that I have been prolix. I will therefore omit a further account of them in this place, as I shall have to describe the symptoms of disease of the bones of the spine, which are similar to those produced by the disease of the spinal marrow.

I would, however, call the particular attention of the reader to the symptoms which have attended the cases related by Dr. Abercrombie, which will enable them, in some degree, to distinguish between the symptoms attending this disease and those of other affections. Unfortunately, on being called to an individual suffering from an acute attack of this complaint, he is very rarely in a

condition to give the requisite information, and the attendants are generally incapable of supplying the defect.

Cause of the disease of the Spinal Marrow.

When we take a general survey of the causes which may produce disease of the spinal marrow, we find them very numerous; it is our intention, however, in this place only to notice a few of the most common, and such as are most easily removed. It is well known to every individual who has any knowledge of the human body, that it is continually undergoing changes even in its most healthy condition. In consequence of which there must be a great quantity of irritating matter set at liberty; which is in the perfect health and vigour of the body separated from other parts and thrown out of the system, in the form of perspiration; but if, being retained by want of proper vigour of the constitution, which can only be attained by proper exertion or exercise, it becomes a cause of irritation, and must result in change of structure. If this should happen in the spinal marrow, which has so great an influence over other parts. The result must appear evident.

For instance, if a change of structure takes place in an organ when others are depending upon it for support, there must, of course, be a change of action in the depending organ; hence, if the spinal marrow becomes diseased in the part where the nerves which supply the stomach with nervous energy originate, it must of course disease or debilitate the stomach; this in the first instance, may be trifling, but it would create greater torpidity in the system and would increase the first cause of diseased action and greater change of structure, which would in its turn produce greater debility in the digestive organs, thus the diseased organs would continue to act and re-act upon each other until the whole body would become involved in the disease and completely debilitated.

With this view of the subject, the reader will readily perceive how an indolent or inactive life may become a cause of disease of the spinal marrow and general nervous debility, which never can be removed by applying remedies to the stomach, but can easily be restored by removing the first cause of the malady.

Another very common cause of disease of the spinal marrow,

we conceive to be improper articles of food and drink. It is not necessary these should be that class of articles which is known to be indigestible, and may produce disease in that way; but such as do produce a healthy action in the digestive organs when taken in moderation, and might perhaps be taken for any length of time without injury if they were not brought in contact with parts more susceptible to disease than the stomach. We allude to wine, ardent spirits of all kinds, and highly seasoned or stimulating articles of diet. Those articles do undeniably promote the action of the digestive organs, but the stomach, when healthy, needs no such diet. When those articles have been taken for some time, and conveyed (as they always are) to every part of the body, and come in contact with an organ of delicate structure, an inflammatory action is produced in the part which perhaps may be restored as soon as the exciting articles are removed; but this, as in the former case, has produced disease, and if it should be in the same part a similar train of evils will be the result.

A third cause of the disease, (and what we have reason to believe is the most common) are medicines improperly administered; the most injurious of those are mercury and opium, the bad effects of which are produced in the constitution by those articles when improperly or injudiciously administered, are too well known to require much attention here; but the manner in which they act upon the system does not appear to be understood. We have already stated that the nervous system of man was composed of two species of nerves, one of sensation, the other of circulation; we know that the cause of pain originates from a want of harmony in the action of those two species of nerves, and the only safe method of removing the inharmonious action is, generally, to remove the offending cause. But we find when an indigestible or irritating substance is taken and produces pain in the stomach, in place of removing it and abstaining from its use, opium in some of its popular forms is taken, which not only has a tendency to destroy the natural feelings of the individual, but after this course has been pursued for some time, the nerves cease to perform their proper office and deposits of irritating matter are permitted to collect in the various vital parts and becomes a cause of disease.

The effects of mercury on the organs of the body when improperly employed, are, they relax and soften them. Even the bones* of the human body have been known to be softened to the consistency of matter by its protracted or improper use. When this softening takes place in the spinal marrow, its results may be understood from what has already been said.

I might demonstrate upon the impropriety of making too free with those articles as a medicine. But I fear it would be of little use; for indulged as many of the afflicted have so long been in the seductive cordial or exhilarating pill, they will not readily abandon their use. I will, however, make a few remarks, with the hope of at least diminishing their destructive effects.

It is well known to many of my readers that the daily prints of this city are full of advertisements put out by hardened and daring imposters boldly promising relief to every pain, a cure for every ill, however inveterate or irremediable its nature may be; now we are certain that there is not one of those panaceas or pills of whatever name they may have, and advertised by quacks or pretended doctors but what contains a large portion of either mercury or opium. This has been, and can be detected by chemical tests; yet the afflicted, and even in some instances those who are in health, for the purpose of preventing disease, swallow them in quantities, merely from the recommendation of an ignorant quack or his coadjutors, daringly attesting those falsehoods which generally accompany their advertisements. Reader, were you to give this subject one rational thought you could not help being convinced of the fallacies attending their assertions, and would not suffer yourself to be imposed upon by persons who are disposed not only to rob you of your money, but also to lay the foundation for delicate health, or render your complaints incurable. Look at some of the papers which were published ten or fifteen years ago, and you will see remedies advertised, and more maliciously, if possible, recommended, than those of the present day, which have long since been found worse than useless, and forgotten. Do you suppose that if they had been as efficacious as they were said to be at that time, they would have been so soon consigned to oblivion. But you may say they have been recommended to

* See article on softening of the bones of the Spine.

you by a Physician in whom you place great confidence, and I will not doubt your word, for I have known instances in this city where Physicians, if such they can be called, have been guilty of that mean act. But I do most affectionately warn you of the danger of employing or placing confidence in a doctor who is known to be in the habits of prescribing or recommending any one of those articles to his patients. Such a physician, whoever he may be, is beneath your notice, and more culpable than even the ignorant quack himself, for he is recommending a drug which he can have no knowledge of excepting that it may give temporary relief; if he was acquainted with its composition he could procure it for you at a much smaller expense than what you would have to pay for it after having passed through the hands of a quack; and a physician who understands his profession ought to be acquainted with all kinds of medicine, and be able to prescribe them either in the form of pills or panaceas, and he would then have some knowledge of the effects which would be produced upon the constitution. I would also caution invalids against using drugs or trusting that class of doctors who advertise remedies to be taken without their having first seen the individual. It is astonishing to behold the amount of suffering that is produced in this city by those articles. A person, for instance, is taken with a slight cold and cough which would perhaps go off in a few days were it left alone: but they hear of some mixture which has been recommended for colds or cough; they procure it, and take it according to the direction on the bottle. The result is, some incurable disease, such as consumption, is produced. Now there is seldom two diseased persons who will be benefited by, or ought to take the same medicine, notwithstanding their diseases may be of a similar character.

It may further be argued that those quack medicines afford a ready refuge in cases of slight and transient ailments, which need not the formal attendance of a medical practitioner, that they are convenient, too, where the cost of this attendance could not be afforded. That I am persuaded, that there is much fallacy in both these pleas; that the domestic treatment of slight ailments, especially by quack medicines, is the source of almost all the protracted and inveterate diseases to which the human body is

liable; yet I am willing to admit the administering of simple remedies are an advantage; those may, however, be procured from a much less questionable source, and for a very trifling expense, when compared with that which I have alluded to. In fact, I believe there might be a great amount of suffering prevented, if parents and others were to pay some attention to the nature of disease and medicine; and I would respectfully recommend them (as I believe it is the only plan of safety which can be adopted,) to make themselves, in some degree, conversant with the nature of disease and medicine. By reading half an hour every day they would, in a short time, not only be able to detect the ignorant and malicious imposter, but will be able to administer medicine at the commencement of a disease with a success which will often prevent a protracted illness. For the purpose of enabling my readers to do so with a certainty of success, I have, in connexion with the treatment of disease, described the nature of the medicine which I have recommended, together with the effects which they are to produce upon the constitution; and notwithstanding diseases may be complicated when the real cause is discovered, the treatment which will be proper will be found extremely simple. I know nothing to deter persons from trying to obtain a knowledge of disease and medicine; they are able to acquire information on other subjects of as much importance as this. Another reason which I would offer in advising them to do so, is the great danger they are in at this time on account of the new systems of practice which are daily rising, the advocates of which assume the title of Doctor, without having the least shadow of claim to the profession, and individuals altogether unacquainted with the duties of a physician, are as liable to call in one of those characters as any other. It would be out of place for me to enter into an exposition of these new systems of practice or impositions in this place; but I will, however, mention one of them, as I have reason to believe the medicines they employ have a tendency to cause the disease of the spinal marrow. This system consists in giving very small powders, and is well calculated to deceive the simple. It is well known to that faculty at least, that there has been many late improvements made in medicine by our worthy chemists. For instance, morphia is a preparation

which has been made out of opium; and notwithstanding it has the same injurious effects upon the constitution that opium has, it is altogether different in appearance, and can be administered in the smallest particles; the eighth of a grain being equal to one grain of opium, and having the appearance of a small particle of flower. It can be administered by those who wish to deceive without the least danger of detection, and is as certain to remove pain by destroying the natural feelings of the sufferer, as that it is given. This article with a few others, such as the most acrid preparation of mercury and arsenic, each of which is given in doses of the sixteenth of a grain, is the principal medicines used by some of those doctors who boast of their system of small powders; but their impositions will soon be discovered, and it will be found that the mode of practice with its improvements, which has stood the test upwards of four thousand years, is the only one that can be depended upon, and all that is wanting to render it efficacious is its proper application.

Treatment.—From what has been stated above in relation to the nature and character of this disease, it will appear that the general indications to be kept in view with regard to its remediate management will be: First, to remove the torpid or inflammatory action which has taken place in the spinal marrow as soon as possible: Second, to produce a healthy action in the nervous system, with a view of promoting a discharge of the viscid or irritating secretions which are deposited in the vital parts: and Third, to remove the diseased or unnatural action which has been produced in the various organs of the body by the disease of the spinal marrow. For the purpose of accomplishing those indications, it will be proper for us to have reference to the symptoms which are produced by the disease in the different parts of the organ, as represented by the plate, either in the acute or chronic form of the affection.

For the purpose of rendering the treatment plain and efficacious, I will, in the first place, mention that which will be proper in the different parts of the spinal marrow; and secondly, that treatment which would have been proper in the different stages of the cases which have been related.

Treatment of disease situated in the uppermost part of the Spinal Marrow.

When we have reason to believe from the symptoms, as related on page 102, that there is disease of the upper part of the spinal marrow, it will be proper to apply some irritating application to the back of the neck for the purpose of producing a discharge of matter. Various substances have, at different times, been proposed for the accomplishment of this object,—such as the strong acids, red hot iron, setons, issues, and, in some instances, boiling water has been applied to the skin. I have not mentioned these articles with the view of having them applied, (as I have others to recommend which are much more efficacious and less painful,) but merely to show the importance which has been attached to articles of the kind by the ancient physicians in cases of disease of the spine or its appendages. For the purpose of convincing my readers more fully of the importance of remedies of this kind, I will insert an extract taken from Dr. Coxe's American Dispensatory: he says, “the Egyptians, by the application of fire, seem to have cured diseases which have latterly been deemed incurable. The Chinese still greatly employ fire in the treatment of disease—red hot iron and moxa are employed by them.” The last mentioned article, he says, “is a woolly kind of substance or down of a species of mugwort; of this, small cones are formed, about an inch broad at the base. In using it, a cone is attached to the skin by means of a little gum arabic; fire is put to the top, the ignition gradually descends and reaches the skin, which it burns like the actual cautery,* but, as some say, with less pain. If this first burning is insufficient, a second, third, or more, are repeated. Smaller cones are also made, scarcely larger than a pea, intended for weak and delicate people; the effect is proportionably feeble. The sore is commonly dressed with basilicon. By these means, which are universal throughout the East, the inhabitants are enabled to cure the most obstinate rheumatic, gouty, or other pains, dispel apoplexy, epilepsy, and other diseases, which are curable by powerful and prompt revulsion. The place of

* Red hot iron.

moxa may be readily supplied by cotton, flax, hemp, the pith of elder, sunflower, &c."

For a long time the employment of moxa seems to have been forgotten in Europe. It was, however, formerly employed, and has, within a few years, been again taken up. In the *Quarterly Journal of Foreign Medicine and Surgery*, No. VIII., Oct., 1820, several cases are related of its employment, as of rickets* attended by lateral curvature of the spine, chronic ophthalmia,† chronic pulmonary catarrh,‡ rheumatic sciatica,|| and other rheumatic pains, facial neuralgia,§ and maxill-dental nuralgia, all of which were cured by its application.

In the *London Medical Repository* of late dates, we have also seen several cases of disease of the lungs successfully treated by its application. In the *Journal General de Medicine*, we have seen a case related, in which one of the abdominal extremities had been shortened more than an inch by violent spasmodic contractions, which had been restored by the application of moxa applied to the spine. And in the *Journal Complementaire* there is a case related in which palsy was cured by its application.

I trust the above quotations will be sufficient to convince those of my readers who may be so unfortunate as to be afflicted with any of those distressing nervous affections, of the importance of using external treatment; and we feel a degree of satisfaction in being able to recommend substances far less painful than the above, and also much more efficacious. The articles which I would recommend, are, 1st. the common blistering or Spanish fly (*cantharis vesicatoria*.) in combination with substances which have a tendency to remove all danger of their being absorbed by the blood-vessels. 2nd. The potato fly (*lytta vittata*.) This insect was first brought into notice by Dr. Isaac Chapman, of Bucks county, Pennsylvania; it feeds principally upon the potato vines, and, in the proper season of the year, may be collected in immense quantities. This insect has a very near resemblance to

* Softening of the bones.

† Inflammation of the eye of long standing.

‡ Disease of the lungs.

|| Rheumatism of the hip-joint.

§ Pain in the face or tic.

the Spanish fly, but is rather smaller, and of a different colour, having its elytra or wing cases black with a yellow stripe and margin; its head reddish yellow, and its abdomen and legs black. It may be found in all parts of the United States and South America. They should be collected in the season of the year when they are most abundant, and dried for use; they will retain their strength any length of time, if kept in a bottle well corked. When a proper plaster is prepared, by mixing either of those species of insects with other articles, and applied to the part of the spine where the disease is supposed to be, they, by producing a derivation of the circulation from the diseased and engorged parts, to the inflamed or blistered surface where it has been applied, answer a much better purpose than that of applying fire or other inflammatory and painful substances. The vesicated, or blistered part, produced by their application, may be considered in the light of a new excretory organ, the formation of which requires the establishment of a new current or determination of blood; so long as the discharge continues, so long will there be an especial demand for blood in the blistered part, and a consequent derivation of the circulation from the diseased part. The nature of the fluid effused is at first serous or watery, but after some time it becomes of the appearance and consistency of matter, which is a certain sign that the application has been near the seat of the disease, and great advantage may be expected from its use.

I think it my duty in this place to make a few observations upon the improper use of those remedies. Notwithstanding it is supposed by some physicians, that blisters are simple things, and that if they do no good they can do no harm, they will be found to be labouring under a mistake, if they attempt to use them in the common way, a sufficient length of time to remove disease of the spine or spinal marrow; for, like all other potent applications, they are capable of producing much mischief when directed by unskilful hands. In cases of high vascular excitement in the pulmonary organs, or in other words, where there is great fever, accompanied with cough and pain in the chest, blisters have increased the irritation they were designed to allay, owing to the flies being absorbed, which is always the case if there is more

heat or inflammation in the diseased part than what the flies are able to produce in the skin where they are applied. In a case of this kind, the best and only safe remedy is to detract blood, either with cups or leeches, from the neighbourhood of the affected part. In the treatment of acute *Hydrocephalus*, or disease of the brain, the common practice of blistering the head appears very improper, and has often, I am well persuaded, accelerated the fatal termination, by increasing the disposition to serous effusion.

The proper way of preparing a plaster of either species of the flies, so as to render them efficacious and at the same time to prevent their injurious effect in cases where their use is required for a long time, is, to take of lard, yellow wax, Burgundy pitch, flies reduced to a fine powder, each equal weights, to which add one-sixth part of tartar emetic—mix the flies and tartar emetic with the other ingredients, previously melted, and removed from the fire. This mixture is very well suited to the purpose of producing a discharge which will continue much longer and be attended with less pain than any other application that can be employed with advantage in cases of disease of the spine, the Burgundy pitch and tartar emetic having a tendency to promote the discharge and prevent the flies from being absorbed. There is, however, some cases of disease of the spinal marrow where the skin has become torpid, or lost its vitality to such a degree that the above plaster would have no effect, the skin requiring something more stimulating: when this is the case, I would recommend the following—take of Venice turpentine, nine parts; Burgundy pitch, flies finely powdered, each six parts; white wax, two parts; mustard seed powdered, red pepper, each one part: having first melted the pitch and wax, add the turpentine, and to these while in fusion and hot, add the other ingredients, mix the whole thoroughly together until it is brought to a consistency of being spread and formed into thin plasters. This I consider one of the best applications that can be made for the removal of disease of the spine, accompanied with want of vigor in the constitution, which is generally the case in nervous affections.

When either of the above preparations are to be used, the best way of applying them is, to spread the ointment on a piece of adhesive plaster about three inches and a-half long, and one and

a-half inches broad, leaving about the fourth of an inch of the margin of the adhesive plaster free from the ointment, which will enable the patient to keep the plaster on the part from which he wishes to produce a discharge. One of these, applied to the back, of the neck (in case of disease in the upper part of the spinal marrow,) and let remain on the part twelve or eighteen hours, will produce a discharge which will be likely to continue three or four days, when another may be applied close below the blistered surface. Thus they may be changed from one part to another until the disease of the internal parts are removed.

There are other applications which I have used with great success in the removal of the disease of the spine; but as their use requires great caution, and the ones mentioned answering the purpose in almost all cases, I will not recommend their use to the public. However, I will recommend the tartar emetic ointment; this I have found to be much the best in cases of disease of the spine or spinal marrow in the lower part of the back, especially of females, where the organs of the lower part of the body are suspected to be involved in the disease.

Treatment of the disease of the Spinal Marrow in the cervical region.

When the symptoms are such as to cause us to believe there is disease in the cervical part, described on page 102, it will not generally answer to commence with the applications mentioned as proper in the former case, especially if the pulse should be in the least accelerated, that is, if there is over eighty pulsations in a minute, (which often happens when disease occurs in parts having an influence upon the Lungs.) The proper remedy, if this should be the case, will be to have a small quantity of blood taken with cups from the part represented by 4 on the plate; five or six ounces taken in this way every three days, or oftener, if the symptoms are urgent, will be found to reduce the pulse to its proper standard, when the irritating applications may be used with safety. If, however, the disease should be one of long standing, and the patient much reduced, it will not be proper to take blood, but the dry cupping may be substituted; that is, applying the cups in the usual way without using the scarafier, or without drawing blood; they have a tendency of removing the blood

from the affected part only, and cannot exhaust the strength of the sufferer. In a case of this kind, it will also be proper to use the applications less frequently for fear of producing fatal debility.

As regards internal remedies in cases of disease in the *cervical* part of the spinal marrow, it will be proper during the period of cupping, to use small doses of nauseating medicine, such as the ipecacuanha, given in small quantities, say three or four grains at bed time, which will not only assist in moderating the pulse, but will create a healthy action in the digestive organs. If there appears to be much disorder of the stomach, judging from the appearance of the tongue, it will be proper to add half a grain of calomel. In cases of delicate persons, in place of the ipecacuanha, twenty or thirty drops of the spirit of ammonia in half a wine glass of water may be given every six or eight hours, with the view of checking the fever and nervous irritation. After this treatment has been used a week or ten days, and the feverish excitement has in some degree been reduced, it will be proper to commence with strengthening remedies, such, for instance, as the decoction of boneset, (*eupatorium*,) horehound, (*marrubium*.) These simple articles of medicine are generally the best at this early stage of the treatment of the disease of the spinal marrow in this part, as the lungs are generally involved in the complaint.

The treatment of disease in the lower cervical portion of this organ, is the same as that which I have just described, excepting that cupping is not so generally necessary.

For further information, see the article described under the head of Disease of the Heart. It will be found in the Third Part of this work.

Treatment proper in case of disease of the upper dorsal part of the Spinal Marrow.

The employment of the irritating applications mentioned in the foregoing articles, answer much better in cases of disease in this part of the spinal marrow, than any thing that I have ever tried; they may generally be used freely, especially in cases where there is not much debility, as there is seldom any fever attending the affection; on the contrary, there is more frequently a slow and

languid condition of the pulse, requiring something of a stimulating nature. At the same time that we are using the external treatment, it will be indispensably necessary to make use of internal remedies, for the purpose of promoting a healthy action in the digestive organs, and also with the view of producing a healthy tone and vigour of the spinal marrow and nerves, which is essential in case of disease in all parts of the organ. In order to accomplish our purpose in this particular, it will be proper to use tonic remedies, such as extracts or teas made of gentian, colombo, centaury, Peruvian or dogwood bark. The mineral tonics may also be used with advantage; the most efficacious of these are, the various preparations of iron, the acids and contra. These articles of medicine, together with other tonic or strengthening remedies, are well known to have the tendency to invigorate the nervous system, and when properly persevered in, to produce solidity of the organs of the body generally. The cold salt-water bath will also be found to be beneficial in all cases of the disease unattended with fever. The sensible properties of the cold bath, (like the tonic or strengthening remedies mentioned above,) consists, in general, in its power of contracting the solid parts of the body; which contraction is followed by a general re-action, indicated by a salutary glow of the whole surface. Any part of the body which is exposed to the sudden contact of cold water, experiences at the same instant a degree of tension and contraction, and becomes narrower and smaller. Not only the large blood-vessels, but likewise the small capillary tubes are liable to this contraction and subsequent relaxation. The application of cold, when made to suitable habits, and proper states of the constitution, is evidently attended with an immediate tonic effect, from the general glow which takes place through the whole body, and the accompanying feeling of renewed strength, which indicates an increase of action, of a salutary nature, in all the vessels of the system; and this increased vigor of action is a test of the propriety of the application of cold, and explains the manner in which it is beneficial. It shows that the nervous blood-vessels, and all the organs of the body are excited to a more healthy and energetic performance of their functions; and when this re-action does not take place, the failure is a sufficient proof of such weak-

ness or other state of body existing, as precludes the further employment of the cold bath.

It will therefore be proper for the individual labouring under symptoms of disease in this part of the spinal marrow (described on page 103,) to use the above remedies freely. I have found the extract of dogwood bark in combination with small portions of calomel to answer extremely well for the purpose of restoring the tone of the digestive organs; four grains of the former in combination with the fourth of a grain of the latter article, may be taken once a day by an adult, and, at the same time, the cold salt bath, or friction with a coarse cloth, saturated with salt water may be used in the morning.

The most convenient method of preparing an extract of the dogwood bark for domestic use, is, to take of the inner bark, either of the root or trunk of the tree, one pound, water six pounds—boil until the water is reduced to two pounds, in a vessel almost covered; filter the decoction,* while hot, through linen, and boil it down to half a pound; this is to be placed in an open vessel, and kept moderately warm until the water evaporates, and the extract becomes dry.†

The sulphate of quinine is also a very good remedy, in cases where the stomach is very irritable, and when other tonic remedies cannot be taken; two grains in combination with the fourth of a grain of calomel, may be given once a day, rubbed up with a small quantity of sugar.

The rust of iron is also a very safe and salutary remedy. It answers best in cases of children or delicate females; when the bowels are constipated, it ought to be given with rhubarb or magnesia; five grains of the iron combined with the eighth of a grain of calomel, and one grain of rhubarb, or ten of magnesia, given twice a day will be found to strengthen the system generally.

* Half a wine-glassfull of this may be given to an adult twice a day, (when the patient can take it,) with as much success as the extract.

† Dr. Coxe, in his Dispensatory, speaks in the highest terms of the extract of *cornus florida*, (dogwood bark,) when used in cases requiring tonic remedies.

Purgative medicines are often required in cases of disease in the *dorsal* part of the spinal marrow; but the common drastic purgative, such as salts, jalap, senna and croton oil, or its preparations in the form of quack pills, must be avoided, for though they relieve the bowels for the time, their activity invariably produces still greater weakness in the intestinal canal, which occasions more obstinate costiveness, and thus in reality aggravates the evil they were intended to remove.

A very excellent pill, in cases of constipation of the bowels in this disease, may be made of the following ingredients: Take of compound extract of colocynth, half a drachm; rhubarb, half a drachm; socotorine aloes, twelve grains; essential oil of peppermint, half a drachm; beat them into a mass, and divide into twelve pills. One of these taken at bed-time will generally be sufficient, but some persons may require two.

Individuals affected with this disease are liable to attacks of cramp, or spasms of the stomach. When this takes place, the following will be found to give relief: Take of laudanum forty or fifty drops; tincture of ginger, two drachms; cinnamon or mint water, one ounce; mix for a dose,—to be repeated in an hour, if necessary.

For further information on the treatment of the effects of disease in this part of the spinal marrow, see Disease of the Liver, Constipation of the Bowels, Fits, Insanity, and Indigestion, described in the Third Part of the work.

Treatment of Disease of the Spinal Marrow in the Lumbar or Sacral region.

When we find the symptoms described on page 104, and represented by 8 and 9, the treatment will have to be different in some respects to that which we have recommended to be used in other parts of the organ, especially in cases of delicate females. The most appropriate external treatment will be, to apply the tartar emetic ointment; the way of preparing this is simply to mix two drachms of the tartar emetic with half an ounce of lard; this is to be rubbed on the lower part of the back, or about the region of the kidneys once a day, until the skin inflames, after which it is to

be discontinued, and again applied after the inflammation subsides. A plaster of mustard will answer very well in cases where there is much acute pain; it ought to be applied frequently, at least until the pain subsides. The plasters mentioned in the foregoing treatment can generally be used with advantage in cases of males.

It will also be proper to use friction over the small of the back and lower extremities, frequently, with the flesh brush, or a cloth saturated with salt.

The internal remedies mentioned, as proper in disease of the *dorsal* part, will also answer in this if sufficiently long persevered in; and I must add, that without perseverance in using the proper remedies in case of disease of the spinal marrow, little permanent benefit need be expected.

For information relating to the removal of the effects of disease in this part, see Palsy of the Lower Extremities, Retention of Urine, Hysterics, and Lumbago.

In case of epilepsy I would also recommend cupping along the region of the spine. M. Esquirols has presented to the Faculty of Medicine at Paris, a Memoir on Epilepsy, in which he states that he had examined the bodies of fifteen patients who died of this disease, and found the spinal marrow affected in all the cases.

Treatment of the acute disease of the Spinal Marrow.

The treatment proper in an acute or sudden attack of this disease, either from accident or effusion, (which may be produced by a sudden check of perspiration,) will be to take blood from the part with cups. If, however, the patient should be much exhausted by previous disease, it may be proper to attempt a removal of the pain, difficulty of breathing, or palpitation of the heart, by using dry cupping or mustard plasters frequently to the part. In case of apoplexy,* I would also advise cupping along the whole length of the spine, together with the remedies usually employed.

* See treatment of Apoplexy in the Third Part of the work.

Treatment which would have been proper in case 1, related on page 107.

After the usual remedies for colds or coughs had been used a reasonable length of time without effect, cupping should have been adopted; three or four of these should have been applied at different times upon the *cervical* part of the spine, and three or four ounces of blood taken at each application. After this operation had been performed three or four times, allowing an interval of three days between each operation, and after some cooling remedies had been used, the irritating applications mentioned as being efficacious in case of disease in the *dorsal* part, would have been proper, and at the time they were being applied, some tonic and astringent medicines should have been given internally, such as the flowers of benzoin and the extract of gentian, six grains of the former with one of the latter, given twice a day, would have been found in six or eight days to have made a considerable change in the character of the cough. A decoction of boneset (*eupatorium*) or horehound (*marrubium*) would also have been found to be of great use.

At the time when he complained of the violent palpitation of the heart and difficulty of breathing, for which he was bled, it would have been proper to have had four or five ounces of blood taken from the neck, and four or five grains of ipecacuanha, and one or two of calomel should have been given every hour until slight sickness was produced, which would have removed the difficulty of breathing. For the removal of the palpitation of the heart, I would have given fifteen or twenty drops of the spirit of hartshorn every half hour, until three or four doses were taken; at the same time mustard plasters should have been applied to the spine and breast. It would have been proper at all times during this individual's illness, excepting at the time when the cups were applied, or at the close of his life when hectic fever made its appearance, to have used the irritating plasters already mentioned. (See page 132.) It would also have been proper to have used the extract of bark or gentian, together with friction of the lower part of the body. Towards the close of his life, or at the time when I first saw him, it was proper, for the purpose of palliating, to apply mustard plasters frequently to the lower extremities for

the purpose of diverting the blood from the lungs; it was also proper at this time, for the purpose of moderating the cough in some degree, to administer one grain of opium, or two grains of the extract of hyosciamus every evening at bed time.

Treatment which would have been proper in case 2, related on page 109.

The treatment which would have been likely to have restored this patient to health, had it been commenced at the time he had the severe attack, eight years before I saw him, would have been the irritating applications applied to the *dorsal* part of the spine, so as to have kept up a moderate but constant discharge for three or four months together, with gentle tonic and astringent medicines; a very good mixture in a case of this kind is the following: rhubarb, one drachm; extract of dogwood, or Peruvian bark, one drachm; calomel, five grains, rubbed into a powder, and divided into twenty parts, one of which should have been given every night.

At the time when he was taken with the peculiar sensation in his stomach, it would have been proper in connexion with the external applications, to have had three or four ounces of blood taken from the region of the stomach with cups, and it would also have been proper to have taken a mixture of nitric and muriatic acids, four drachms of the former and three of the latter, diluted with six ounces of water, one tea-spoonful of which should have been given twice a day in a pint of barley water, or some mucilaginous fluid of the kind. Friction with a brush or coarse cloth night and morning over the whole body, would have been proper. His diet should have been light, unirritating, and digestible, such as thin broths, barley or rice, black tea, &c. but no coffee, by any means, should have been allowed.

This individual should most cautiously have avoided a cold damp atmosphere. In general, persons who are afflicted with this disease are peculiarly sensitive to a low temperature, and it is a matter of considerable consequence to the successful issue of our remedies, to place such patients in a temperature perfectly agreeable to their sensations, and uniform in its grade.

Treatment which would have been proper in Dr. Abercrombie's cases, or in case of the most acute attack.

The Doctor unfortunately has not mentioned the treatment which was used in the cases related in the Journal of Foreign Medicine. But, believing from what we have seen related by him and other physicians, both in Europe and this country, that bleeding from the arm in accidental injuries done to the brain or spinal marrow, would have been the treatment of the cases which we have related under the head of acute disease of the spinal marrow, a plan of treatment, in my opinion, very improper and dangerous in a majority of cases, as it has a tendency to produce great debility in the nerves, and greater danger of complete paralysis of the different parts of the body, and cannot be expected to remove the infused blood from the injured part. Moreover, if general bleeding has been adopted at the time of the accident, it will not remove the liability to inflammation in the injured part, and when this takes place we dare not use it, notwithstanding it is one of the best means for subduing inflammation, and can be carried to almost any extent in an individual who has had previous good health.

The treatment which I would recommend to be used in all cases of accidental injuries to the head or spinal column, is, as soon as the affected part can be discovered, apply cups frequently to the part. Previous to this, the sufferer should be laid in a horizontal position, and friction with a coarse cloth applied freely to the extremities, this will often cause an individual to recover from a shock sooner than any thing that can be employed.

Treatment which would have been proper in "case VI," (related on page 118.)

I have had a large number of patients labouring under the symptoms as described in this case. They have invariably yielded to cupping along the region of the spine, together with mild internal remedies, such as a few grains of calomel and rhubarb, if the bowels are constipated, a circumstance which often attends symptoms such as are related in this case. After this treatment has been used, gentle stimulants may be given; fifteen

drops of the spirit of hartshorn every hour or two will be found to be of use.

At the time when the convulsions came on in this case, it would have been proper to have applied mustard plasters to the extremities, and large doses of the tincture of assafoetida should have been given, at least one tea-spoonful in a small quantity of milk and water, every half hour until the convulsions were removed. If the patient should not have been able to swallow, an injection should have been given, composed of half an ounce of the tincture of assafoetida, half a pint of lukewarm water, and as much starch as would have given the mixture some consistency; this should have been thrown into the bowels with a syringe at once, and if necessary, in one hour it should have been repeated. It would also have been proper, after the dangerous symptoms were removed, to apply the tartar emetic ointment along the spine as often as necessary, to keep up slight inflammation of the skin.

I am sorry to have to say, that the physicians in this city are, in my opinion, too apt to attribute the symptoms related, as attending this case, to inflammation of the brain. Several cases of the kind have lately fell under my notice; one was a beautiful young lady; her sufferings were supposed to have originated from the brain. I was consulted on the eighth day of her illness; the physician who had been attending her had applied all the remedies used for the brain fever, as he termed it, such as shaving the head and applying a large fly plaster to it, bleeding from the arm, &c. I told the physician that I did not think there were sufficient symptoms of disease of the brain to justify him in employing such desperate remedies. He insisted that there was disease in the brain, and unfortunately, he soon had an opportunity of satisfying himself that he was mistaken, for the lady died in a few hours, apparently from the treatment that had been used. A *post mortem* examination was made in the presence of several of our most worthy physicians, who gave it as their opinion that there was not the least disease of the brain. The spinal marrow was, on account of the inconvenience which attends its examination, omitted. I feel confident that a similar appearance would have been found in it, as mentioned in the above case; and had cupping been applied along the spine, in place of blistering the

head or bleeding from the arm, this young lady would have recovered.

The treatment which I should have used in the three following cases related on page 118, would also have been cupping along the spine. As soon as a person finds that he has injured the spine, he should have cups applied immediately on the part. If the patient should be a very delicate female, or a child, leeches frequently applied will answer the purpose. I would also advise persons who are so situated as to be obliged to strain, and sometimes lift more than they are able, to be particular and apply the irritating applications I have recommended. These ought to be applied if there is the least stiffness or pain felt in the back after lifting a heavy weight. Very frequently a mustard plaster will answer the purpose, or any of the common stimulating lotions may answer for the purpose of removing the pain; but it must be recollected that those mild articles will not answer the purpose in case of disease of the internal parts.

CARIES, OR SOFTENING OF THE BONES OF THE SPINE.

Disease of the bones of the spine, unattended with deformity or distortion, does not appear to have been suspected by authors generally, at least there has been no distinction made in the treatment of the different affections to which the bones are liable; it being supposed that caries or softening of the bones could not exist without deformity, and that deformity could not take place in the spinal column without caries. These mistaken ideas are undoubtedly the cause of the want of success in the treatment of the disease, as the remedies which would be proper for the removal of a curvature accompanied with caries, would be altogether improper in the removal of a curvature unaccompanied with caries. This will appear evident when we come to speak of the treatment. It is not my intention to enter into a scientific explanation of the nature of this affection, as it will not be expected that the general reader could be interested in a lengthy

discussion on the subject, and our limits would not admit of it. I therefore will, in the first place, point out very briefly the most prominent symptoms of disease, or softening of the bones of the spine, unaccompanied with deformity, excepting in stature.

Symptoms.—The effects produced by caries of the bones of the spine are similar, in many respects, to those produced by disease of the spinal marrow; but there is a difference sufficient to enable a common observer to distinguish between the two diseases.

Caries in the *cervical* bones affect the arms with numbness, debility, spasmodic twitchings, and paralysis. They also produce uneasiness in respiration, with palpitation from slight causes in the *dorsal* vertebræ, or joints; they produce a grinding sensation over the stomach, as if it were tied with cords. There is also indigestion, and often an unnatural craving for food. The secretions become diminished, the countenance looks sallow, the patient labours under symptoms of jaundice, and the bowels are generally obstinately constipated. The evacuations are often slimy, whitish or clay-coloured; he finally becomes feverish, is restless, emaciated, and affected with many symptoms which resemble consumption. In whatever part of the back the disease may be situated, the lower limbs are apt to be affected on account of slight pressure upon the spinal cord, producing debility of the muscles, and of course, fatigue in walking, the legs frequently crossing each other; the patient is also liable to stumble, and cannot go straight to any point. After the disease has existed for a time, greater pressure occasions muscular spasms, numbness, restlessness, and clammy sweats. A still greater softening and pressure produces inability of motion, and complete paralysis of the limbs.

Diagnosis.—At an early period of this disease, it might be mistaken by a careless observer for disease of the spinal marrow, as there would be little or no pain on pressing the affected part with the finger. In a case of this kind, it would be proper to wet a sponge with warm water, and rub it gently along the spine; this generally will produce some peculiar sensations at the place of disease; if not, it should be treated as directed in case of disease of the spinal marrow. A patient, however, labouring under disease of the bones of the back, will frequently be attacked with

severe throbbing pains in the affected part, especially if he has been exposed to a cold damp atmosphere, which is not the case in disease of the spinal marrow, the pain then being remote from the seat of disease. I deem it proper to remark in this place, that these two diseases often exist at the same time, but fortunately, however, the treatment which has been found effectual in removing disease of the spinal marrow, is also proper in most cases of softening of the bones.

As I am aware there are doubts existing in the minds of some physicians in regard to the existence of a softening or diseased condition of the bones, unaccompanied with curvature, it may be proper, for the purpose of convincing them, to make an extract from the writings of one whose opinion they will not dispute, if they have any regard for their own reputation. Edward Harrison, M. D. formerly President of the Royal Medical and Physical Societies of Edinburg, observes, (when speaking of the cause of curvature of the spine,)

“The true cause of the disease, is a morbid state of the spine, and of some of the parts connected with it, which distempered state of parts will, upon careful inquiry, be always found to have preceded the deformity some length of time. A morbid state of parts previous to deformity, caries, or curve must be allowed; every complaint of the living, and every appearance of the dead, prove it beyond contradiction or doubt. All the general complaints of persons afflicted with this disorder, will always, upon careful inquiry, be found to have preceded any degree of deformity, to have increased as the cause became apparent, and to have decreased as the means for relief took place. The pain and tightness about the stomach, indigestion or dyspepsia, loss of appetite, disturbed sleep, gradually disappear as the marks of returning health become observable, before the limbs recover the smallest degree of their power of moving.”

These passages might be confirmed by reference to several others, but having extracted them from his last *Essays on Spinal Maladies*, it is reasonable to conclude that they contain a faithful record of his last sentiments on the subject.

According to my experience in practice, there are at least one hundred cases of caries and softening of the bones of the spine

in adults, for one case of curvature. I have also had cases which I had every reason to believe had been of twenty years standing, without any deformity whatever, notwithstanding, in many instances, the individuals had become much shorter. In one, the bones of the spine had become so much diseased, as to cause the individual to lose over seven inches in stature, without the least curvature of the spine. He had been unable to walk alone for about seven years, but was finally restored. See case 2, in treatment.

I have made the following extract from the Foreign Journal of Science and Literature, as I think it will throw considerable light upon this important subject. R. P. Player, Esq. in a letter to the Editor of the Journal, observes:

“Sir,—At the commencement of the present year, you favoured me with publishing in the *Journal of Science*, an account of a morbid connexion which exists between the origin of the spinal nerves, and diseases of parts to which they are distributed. I now beg leave to submit to your notice some results of further attention to this subject.

“1. In almost every disease of the upper and lower extremities, of the neck, and of the trunk, and its organs and viscera, preternatural tenderness may commonly be discovered on pressure between the vertebræ from which the nerves emerge, which proceed to the affected parts, or those spinal branches which are more immediately connected therewith.

“2. In diseases in which the circulation is much accelerated in cases of disease affecting important organs, and more particularly when occurring in old age, this symptom may frequently be discovered to extend along a considerable portion of the vertebral column.

“3. Diseases of the head and its organs, and of those to which the par vagum is distributed, appears primarily to be connected with, if not consequential on this morbid state, of one or more parts of the spine. The effects of remedies directed to the spine seem to prove this. When organization is impaired, effects then become causes.”

This author further observes, “That in diseases of females, tenderness may frequently be found about the origin of some of

the sacral nerves." Works on Pathology and Physiology furnish numerous cases and experiments which tend to prove that *pain* and *disorganization*, as well as impaired *function* and *paralysis*, are consequent on causes which interrupt the due transmission of nervous influence to the affected parts. It has been very justly remarked, that nature is sparing of causes, but profuse in effects.

Treatment.—When this disease is found to be in existence, it will be proper to apply some one of the counter irritants, already mentioned as being useful in the disease of the spinal marrow; but as the first occurrence which calls the individual's attention to the complaint is severe throbbing, or lancinating pain in the affected part, it will be proper to use something for the purpose of its removal. Cupping over the seat of pain is the most certain and efficacious treatment for the removal of the pain, and it is also a very good preparatory step towards the removal of the disease. In more delicate persons, especially females, it will be more proper to use the mustard plasters, as they will not debilitate the patient, and is almost certain to remove the pain in a few hours.

A very convenient and invaluable lotion for removing the pain from the spine, or in fact from almost any part of the body when it has been of short duration, and is not depending on structural disease, can be obtained of the apothecaries at a very small expense, the actual cost of a pound being about sixty cents. The manner in which it acts upon the body is, it gives rise, in a space of time varying only between three and ten minutes, to as ample and full a blister, as can be expected in as many hours from the best Spanish flies, and is as certain to remove the pain after a few hours as that it produces a blister.

This lotion has for some time been used in Europe with the happiest results; and I consider it of so much importance in the removal of nervous pains and spasmodic affections, that I think it my duty to advise every person who is afflicted with them to procure a small quantity; it can be used moderately without any danger or pain.

For the purpose of preventing imposition in the sale of the article, I will insert the formulæ, as given by the discoverer, (Dr. Granville, of London,) and can be made by any of the apotheca-

ries in our country villages. The lotion consists of two degrees of strength : the Doctor remarks,—

“Each kind of lotion consists of three ingredients :

1st. The *strongest liquor of ammonia*. (A.)

2nd. *Distilled spirit of rosemary*. (B.)

3rd. *Spirit of camphor*. (C.)

PRELIMINARY STEPS.

(A.)

“Saturate a given quantity of distilled water contained in a glass receiver, surrounded by ice, with ammoniacal gas, obtained in the usual way from a mixture of equal parts of hydrochlorate of ammonia and recently slacked lime, both reduced to a fine powder. The water may be made to take up nearly 300 times its bulk of ammoniated gas under these circumstances ; its specific gravity will then be about 872, and 100 parts of it will contain 33 parts of real ammonia, according to Sir H. Davy’s tables. This solution of ammonia will, therefore, be more than three times the strength of the *liquor ammonia* of the Pharmacopæ of London; 100 parts of which, at a specific gravity of 960, contain only 10 parts of real ammonia. I have, therefore, called mine, *liquor ammoniæ fortissimus*.

(B.)

“Take two pounds of the tips, or small leaves of fresh rosemary, and eight pints of alcohol; leave the whole infusion for twenty-four hours in a well covered vessel, and after adding a sufficient quantity of water as will just prevent the empyromatic smell, distil *seven* pints. The Pharmacopæ of London directs the essential oil of rosemary to be distilled, instead of the rectified spirits. Such a preparation I have found unsuited for my purpose.

(C.)

“To four ounces of pure camphor, add two pints of alcohol, so as to dissolve the camphor, which solution should be filtered. The present tincture of *camphor* of the Pharmacopæ of London, contains one ounce more of that substance, and does not harmo-

nize so well with my two other ingredients as the weaker preparation.

“The three ingredients, thus prepared, every medical man should keep always ready at hand, in well stoppered glass bottles, so as to be able to make, extemporaneously, a counter-irritating lotion of any requisite strength, according to the nature of the case requiring the application on extraordinary occasions. But for the ordinary purposes detailed in my work, it will be better to keep both a milder and a stronger ammoniated lotion ready prepared for use.

The milder Ammoniated Lotion.

“Assuming the quantity of lotion desired to be divided into eight parts, then the proportions of the ingredients will stand thus :

A—four-eighths,

B—three-eighths,

C—one-eighth.

The stronger Ammoniated Lotion.

“If the quantity desired be also divided into eight parts, then the proportions of the ingredients run as follows :

A—five-eighths,

B—two-eighths,

C—one-eighth.

“Although the changes of proportion here may be deemed trifling, yet the strength of the lotion is such, that I never employ it, except in cases of apoplexy, and for the purpose of cauterization.

Directions for mixing the ingredients.

“A and B are gradually mixed together. The mixture becomes opalescent and somewhat turbid, and a peculiar, highly agreeable ethereal smell is given out, free from the individual odour of either ingredient, although the extreme pungency of the ammonia be still discernible. I have strong reasons to believe, that at this point of the operation, some particular change takes place, which imparts to the mixture of the two ingredients some of its valuable peculiarities as a counter-irritant described in my work ; but what that change is, it is not my business to enter upon in this place.

Suffice it to say, that in a great number of experiments made with the ingredients separately, (for each of them acts as a counter-irritant on the skin,) and with them combined, the effects were uniformly different from those in the former case, being found unequal to the production of those complete results which, I trust, I have justly promised to the profession. Ammonia alone, (however strong,) will not give rise to the effects I have described, though it has often stopped internal pain, and produced *small, little blisters*; but never has it succeeded in almost immediately producing a full vesication, as I have seldom failed to produce with the two ingredients mixed together, particularly after the third ingredient has been added.

“Before, however, that third ingredient is so added, it is desirable to clear the previous mixture by the addition of a small quantity of alcohol, and to set the whole in a cool place. All the various precautions here mentioned may, upon an emergency, be dispensed with, when an immediate action is required, either to arrest pain or relieve deep-seated inflammation. But for the more delicate uses, particularly for instantaneous vesication, the preparation should be obtained in the manner I have specified.

“The lotion must always be kept in bottles with glass stoppers, and their whole virtue depends on the accurate distillation and preparation of the ingredients, as well as on the careful admixture of the latter. The species of ethereal principals formed during the admixture, remains present in the lotion, but is apt to vanish if the bottle be frequently opened, and then much of the peculiar effect of the counter-irritant is impaired. It is one of the many recommendations of those powerful preparations, that their effluvia, besides being agreeable, are of precisely that nature which is most likely to revive and benefit the patient labouring under disease that requires the application of counter-irritants. The compound camphor liniment is the only known combination of ingredients nearly similar to the ammoniated lotion just described. But the profession is well aware, that the liniment will not produce, and never has produced the effects I have predicted.

“Among those effects, one of the most surprising is that of giving rise, in a space of time varying only between three and ten minutes, and in almost every instance, (if such a result be the desired

object,) to as ample and full a vesication as can be expected in as many hours from the best Spanish flies. This is a result which, I am not aware, has been obtained before in so short a time, except by boiling water, (a remedy not quite so pleasant as the odour of ammonia,) and on it, therefore, as well as upon its importance in the treatment of many serious disorders, I do take my stand, as also upon that of arresting nervous and muscular pains almost immediately, provided it does not depend on structural disease."

I have used this lotion on my own person and others, and find it possessed of the powerful effects attributed to it by the discoverer, and think it of so much importance to the community, that I should not consider a druggist worthy of the patronage of his neighbours, who would not always keep it ready for use; and I would impress the fact on the minds of my readers, that it will remove pain if it is made sufficiently strong to produce a blister in the time specified by its discoverer; if it does not, little more can be expected from its use, than is produced by the common spirits of hartshorn and camphor. It must be kept in a bottle stopped with a glass stopper, and the stopper must not be left out of the bottle longer than can be avoided, as the lotion would lose its strength. The best way of applying it is, to fold up a soft piece of muslin six or eight double, smaller or larger, according to the extent of pain. This compress is to be wet with the lotion, and applied to the part as soon as possible. To prevent its evaporation and injury to the hands whilst pressing it to the part; a piece of leather about the size of the compress may be applied over it. In cases where I have used it with a view of making a blister, I have kept it on the part two or three minutes after smarting had commenced; but it would not be proper to keep it on longer, and even not so long if it produced much smarting, as it would cauterize or burn the skin, and produce unnecessary pain.

But, notwithstanding I consider this lotion of so much importance in the removal of pain, it will be of little or no use in removing the disease under consideration, and must not be employed with that intention, unless the sufferer wishes to endure pain without receiving benefit, as nothing can remove caries or softening of the bones, but something which will produce a free and

permanent discharge of matter, such as I have recommended to be used in case of disease of the spinal marrow. See page 132. If the disease should be in the small or lower part of the back, especially in delicate females or children, the tartar emetic ointment will be preferable. It must also be recollected, that it will be almost in vain to attempt to remove the disease without using some medicine internally, with the view of producing a healthy action in the bones. For this purpose, I have used the extract of bark in connexion with a small quantity of calomel, with the happiest results, in the proportions of two grains of the former to the sixth of a grain of the latter, twice a day. In cases of children, the rust of iron in five grains three times a day, together with the twelfth or sixteenth of a grain of calomel, will be found serviceable; gentle exercise in the open air, sea-bathing in the warm season, and nutritious food are very essential in the removal of this disease; but it must be recollected, that though an inactive or indolent habit is to be avoided, the patient is not to use so much exertion as will fatigue him much; and it must also be recollected, that disease or a softening of the bones of the back like the spinal marrow, requires the greatest perseverance, and when it is found that the disease is in existence, the criterion for omitting the treatment must be the restoration to health, which will be certain to be established if the treatment which I have recommended be judiciously applied.

Cases of disease with the treatment made use of.

Case 1.—Miss D——, a lady in her 25th year, had been a long time in an infirm state of health, principally from pain in the head, side, and stomach, together with an almost constant cough and spitting of blood, in the spring of 1835. She had been taken with chills and fever, supposed by her physician to be bilious fever, and, as a matter of course, had her bled and severely drenched with calomel and jalap, followed by large doses of quinine, without, however, being of the least benefit. Shortly after this the spitting of blood and cough became much worse, and was accompanied with a sore mouth and throat, with difficulty of swallowing; in consequence of which, I was called in, and found her in a complete state of emaciation and debility, so much so,

that I did not think it safe to use the treatment which would have been proper for the removal of the cause of her sufferings. Her mouth, tongue, and throat were covered with a white crust, swallowing was so difficult and painful, that I was apprehensive of fatal consequences. I found, by pressing gently along the spinal column with my finger, that there was great disease of the cervical portion of the spine, and considered it most advisable to commence the treatment with external remedies. I in the first place, had six dry cups applied to the affected part of the spine, which gave her much relief in regard to breathing. I also ordered her the fourth of a grain of calomel, and five grains of rhubarb, to be taken twice a day, together with a wash composed of lime water and sage tea for the mouth and throat. After this treatment had been continued three days, the fever abated to such a degree that she could take gentle bitters, such as centaury or chamomile tea. I also ordered the irritating applications, (mentioned on page 132,) they had the happiest effect in removing the pain, difficulty of breathing, and, in a great measure, the spitting of blood; the cough and expectoration of purulent matter, however, continued. In consequence of which a friend of the patient's requested the family physician to call, and pass his opinion upon her case. He done so during my absence, and after examining her closely, told her that she was in the last stage of consumption, and could not live more than two weeks. I have not mentioned this in the way of reproach; but merely to show how grossly a physician may be mistaken, and how wicked it is for a physician to make too free with his opinions when he is void of judgment. This patient, notwithstanding the injury which was inflicted by her over-zealous friends, after persevering a few weeks with the irritating applications, recovered from her sickness, and has enjoyed over three years the most perfect health.

Case 2.—Mr. ——— became indisposed about eight years since with general debility; this increased gradually until he became so weak as not to be able to walk across his chamber without assistance, notwithstanding he had the attendance of some of the most respectable physicians, and also some of the most filthy. I was consulted in the spring of 1837, and found the sufferer in the most deplorable condition from the effects which the disease had

made upon his constitution. He had been told that he had disease of the spine, and was advised to lay in bed, and have setons, costic, issues, &c. established in his back. On my first visit I examined the spinal column, and found all the bones completely softened, and some of them absorbed to such a degree as not to be more than one-third their usual thickness. On further examination I found that he had actually lost over seven inches in stature, notwithstanding there was not the least projection or internal bend in the back. His digestive organs were deranged to an alarming extent, so much so, as to cause me to doubt as to the propriety of my attempting a cure. He insisted upon me trying to restore him. I prescribed the irritating applications mentioned on page 132, and the extract of bark, together with an occasional dose of rhubarb combined with a grain of calomel. In a short time this patient began to improve, and in about one year after I first saw him, he was quite restored merely by using this simple treatment.

Judging from the effects which were produced in this gentleman by the treatment, and the many hundred others of a similar nature which I have attended in this city and its vicinity, I have no hesitation in giving it as my opinion, that there is no case of disease from softening of the bones or spinal marrow, let the effects which have been produced in the organs of the body be what they may, (excepting disease of the lungs,) that may not be removed by a judicious course of treatment.

As I have reason to believe that there are many physicians who do not believe that there could be such a case as the one related above, and as it may be of importance to their patients that they should be convinced of the truth, and as they may be at such a distance from the city as not to be able to visit the individual, I will make a short extract from Dr. Abercrombie's publications which will throw some light on the subject, or at least convince them that something of the nature of the case described may exist. He says:

"In cases of carious and distorted vertebræ, attended by paralysis, it is well known that the paralysis is not occasioned by the distortion, for this may exist in a great degree without paralysis, and when they have existed together, the paralysis may be re-

moved, while the distortion remains undiminished. The original disease appears to be an inflammatory action, affecting, in some cases, the ligaments and membranes; in others the articulating surfaces and intervertebral cartilages, and in others the bodies of the vertebræ. It is in the latter case that the caries, which follows the inflammatory action, produces distortion; but even in this case distortion is not an invariable consequence, for the caries may take place in such a manner as to diminish the size of the vertebra equally along its whole extent, and merely to SHORTEN THE SPINE WITHOUT DISTORTING IT."

The following may also be of service to those who may be so unfortunate as to be labouring under the disease, and may have a physician whose views of the nature of the disease may be limited or prejudiced. It is from the same author; he says:

"In attending to disease of this kind in practice, therefore, it is not sufficient to ascertain the existence or non-existence of distortion. The whole spine should be examined with care, with the view of detecting the presence of inflammatory action: this will be pointed out by pain and tenderness on pressure, or pain on passing a hot sponge over the part. Such examination should be made when symptoms occur, which have been observed to be connected with affections of the spine or spinal marrow, especially if they do not yield readily to common modes of treatment, or if they have commenced soon after injury or sprains of the spine. The principal symptoms of this kind are the following: Weakness, numbness, or convulsive affections of any of the limbs, spasmodic starting of the limbs, occurring chiefly in the night, loss of the full power of the muscles, so that, though the person can walk with his usual strength, he cannot perform such motions as are requisite in running or leaping; numbness along the margin of the ribs, and a peculiar oppression and tightness across the region of the stomach, various affections of the breathing, difficulty of discharging the urine and fecies, or difficulty of retaining them. Complaints such as those have sometimes been found to be connected with affections of the spine or spinal marrow, after they had been mistaken for DYSPEPSIA OR ASTHMATIC DISORDERS."

DISEASES OF THE SPINE, ACCOMPANIED WITH DEFORMITY OR PROJECTION OF THE BONES.

It is my intention to speak of this species of the disease under two heads; first, curvature, or projection of the bones of the spine, accompanied with caries or softening of the bones of the back; second, curvature of the spine unattended with any disease of the bones whatever; and I will remark in this place, that this distinction never has been made by authors, and may be the cause of some critical remarks; but I am prepared to make it appear, not only that there is such a thing as curvature of the bones of the back unattended with caries, but that the want of success which has attended the endeavors of physicians to remove the disease, has been owing to the want of making this distinction, and that there has been more injury done by attempting a cure without having a proper knowledge of the disease, than there has good resulted from the treatment: and it is surprising to me, that this disease has been permitted to exist such a length of time without being properly investigated—a disease above all others by which mankind are assailed; the most distressing, the person so affected being rendered unfit to discharge the duties of life. To a reflecting mind, nothing can be more distressing than to behold a fellow being, in whom the chief purposes of this life has been defeated, at least to such a degree as to cause him to consume his days in distress or unproductive exertions.

Curvature, or projection of the bones of the spine accompanied with caries.

It would be superfluous in me to enter into a lengthy description of the symptoms of this species of the disease after what has already been said, and as the appearance which is produced is sufficiently evident. But I must remark, (and I wish the remark which I am about to make to be recollected by my readers,) that deformity produced by caries or softening of the bones of the spine never can be removed; but there are always symptoms existing and sufficiently evident to call the attention of but a common observer to the disease, a sufficient length of time previous to the deformity taking place, to enable the sufferer or his friends

to apply remedies which will prevent its occurrence. For the purpose of proving this assertion, I will insert the following sentence taken from Dr. Harrison's* publications. He says: "A vigorous opposition to the very dawn of the complaint is of the greatest consequence, because no effectual means have hitherto been attempted to remove the deformity." It will, therefore, appear evident that the reader should be made well acquainted with the first dawn of the complaint, so as to enable him to detect it; but I think it proper, however, to observe in this place, that the symptoms as well as the ability of removing the deformity in those two species of the disease, are altogether different;—in other words, deformity, unaccompanied with caries, is perfectly under the control of remedies, and fortunately there are, according to my experience, but few cases of deformity produced by caries, when compared with that species of the disease unaccompanied with caries.

Symptoms.—The majority of those who become deformed with this species of the disease are children. I have never known it to take place after the middle period of life. When it attacks a child who is old enough to describe its feelings, it will, for a long time before the deformity makes its appearance, be heard to complain of pain in some part of the body remote from the spine; it will be found to be listless and easily fatigued; often inclined to be in the recumbent position, and it will also be found to be easily fatigued on walking.

In a younger child, or one which is just able to walk, the first thing which excites attention is its awkward and imperfect manner of using its legs or arms. In a still younger child, or one that has not began to walk, it will be found that it will not attempt to stand, and if it is set in the upright posture, it will fret and often cry bitterly.

The account most generally given by parents is, that for a longer or a shorter period before the deformity was observed, the child had been unwilling to move much, or briskly; that he had been observed frequently to trip and stumble, although no impediment lay in his way; that when he moved hastily or unguardedly

* Formerly President of the Royal Medical Society of Edinburg.

his legs were perceived to cross each other involuntary, by which he was often and suddenly thrown down; that if he attempted to stand erect, unsupported by anything, his knees would totter and bend under him that he could not, with any degree of certainty, direct his steps to any particular point; in attempting to do so, his ancles would be suddenly brought in contact with each other, and that about this time he was heard frequently to cry or complain of pain in his thighs, or at the pit of his stomach, especially in the night or early in the morning.

An adult, who has had an attack of the disease without having received any violence to the spine, will say, that his first intimations were, a sense of weakness in his stomach resembling what is called dyspepsia; a heavy, dull kind of pain in the extremities, accompanied with such a lassitude as to render a small degree of exercise fatiguing; and a very perceivable diminution of feeling in the extreme parts of the body had existed for a long period before any projection of the bones had been perceived.

In this species of the disease there is always tenderness to be found on pressing the diseased part of the spinal column. In short, the symptoms of curvature of the spine accompanied with caries, are almost the same as those already mentioned, as attending a softening of the bones.

Cause.—The true cause of this disease is, a disordered state of the body, produced generally by improper management of children, such as improper food, want of pure air, &c. I am aware that some of our popular Doctors in this city attribute all cases of curvature of the spine to popular causes, such as tight lacing, or injury done to the spine by falls or bruises. I have known instances where some of these Doctors have went so far as to say, that the parents were to blame for their children being deformed, on account of lacing them too tight. I am not an advocate for tight lacing, but I must say, that it has nothing to do with the matter; and had those physicians a more correct knowledge of the cause, they would have been more likely to have succeeded in the removal of the disease. I will also venture to assert, that no degree of violence that can be inflicted without taking the life of the individual, is capable of producing in the bones of the back the disease I am now speaking of.

Weak and delicate individuals, or children, are the most frequent subjects of this species of the disease; and the cause of their weak and delicate condition is generally owing to the existence of caries of the bones which may have been in existence for ten or fifteen years, before their bones became sufficiently softened to permit a curvature to take place. Violence may be supposed to be sufficient to cause the vertebræ to bulge out and produce deformity in that way, or to bring the two vertebræ nearer to each other than they ought to be, and by crushing an intermediate one, to produce a curvature; but the body of the vertebra so crushed must have been in a diseased state previous to such violence.

Treatment.—When it is ascertained that the curvature has been produced by caries of the bones of the spine, it will be in vain, (as I have already stated,) to attempt to remove the deformity. I have tried all the different means made use of and recommended by writers, such as setons, issues by incision, and issues by caustic, together with the different machineries, and find they are all, from the most simple to the most complex, worse than useless; also, confining the patient in a lying position for a year or two, has been found unsuccessful, and has, to my knowledge, produced disease of the bones in a number of cases of curvature unaccompanied with caries, and, of course, rendered the deformity permanent. Says an eminent writer in speaking of this treatment, “If, therefore, they have any power, that power must be exercised on the parts in connexion with the curve; which parts, when the disease is at all advanced, are incapable of bearing such a degree of violence, without being much hurt thereby: this, if it were merely theoretical, being a conclusion drawn from the obvious and demonstrable state of the distempered parts, could not be deemed unreasonable; but, unfortunately for the afflicted, it is confirmed by practice. They who have had patience and fortitude to bear the use of them to such a degree as to affect the parts concerned, have always found increase of pain and fever, and an exasperation of all their bad symptoms; and I have known more than one instance in which the attempt has proved *fatal*.”

“The use of some or other of those pieces of machinery is so general, and the vulgar prejudice in their favour so great, that notwithstanding I have long been convinced of their perfect inu-

tility, yet, if I had no other objection to them, I would not attempt to rob the afflicted of what they seem to derive such comfortable expectations from; but as I am satisfied of their mischievous effects, not only in the case of the present subject, but in many others, I cannot help bearing my testimony against the indiscriminate and very improper use which is daily made of them."

The plan which I have found most efficacious when called to a patient labouring under curvature caused by a softening of the bones, has been to remove the disease of the bones as speedily as possible. This can be done with as much certainty in a case of this kind, as in a case of disease of the bones unaccompanied with deformity, and with a certainty of checking the curvature.

The remedies which I would recommend are the same as those recommended for the removal of caries or softening of the bones. It may, however, be proper to use cupping more frequently, as there is generally more pain attending a case of this kind than any other affection to which the spine is liable. In delicate persons or children, leeches, or Dr. Granville's lotion may be used for the purpose of removing the pain; but I would not recommend those remedies to be used, unless the pain is very severe, as they would have a debilitating tendency, and would render the disease of the bones more difficult to cure. I am now attending a lady who has been labouring under the disease three years, and has been cupped upwards of fifty times by the orders of a physician, but continued to grow worse; and since I have commenced writing this, I have been informed by one of my patients that Dr. J***** of this city, had advised her to have cups applied for the removal of disease of the spine unaccompanied with caries. She informed him that she thought the operation would be very painful. "Not at all," says the Doctor, "I have had fifteen hundred cups applied at different times to my spine for the same complaint." "Did they cure you?" inquired the lady. "Not yet," was the reply. As regards the position in which a patient labouring under this disease should be kept, I would advise that which is the most agreeable to his feelings; he ought not to use very active exercise, or carry any burthen whatever. I am aware, that the common treatment for this complaint is to incarcerate the patient in the recumbent position; but I am as well aware that it is inju-

rious, and prevents that action in the system which is necessary to assist in removing the disease of the bones. I feel confident that, if an individual in the most healthy condition, was confined on his back for a year or two, he would get disease or softening of the bones of the spine.

CURVATURE OF THE SPINE UNATTENDED WITH CARIES.

Before entering into an explanation of the way in which curvature of the bones of the back is produced, when unaccompanied with any disease of the vertebra, I think it advisable to call the attention of the reader, for a moment, to the manner in which the spinal column is formed, which will, I presume, enable him more easily to comprehend the nature of the disease.

The back bone, which is also named the *vertebral column* or *spine*, is a sort of bony, flexuous shaft, placed at the posterior and central part of the trunk or body, and extending from the head to the sacrum. Although capable of bending in all directions, it is yet very solid, and is excavated by a canal bearing the name of *vertebral*, which gives it lightness without diminishing its strength, and which runs along its whole extent. It is rounded before, elevated into an interrupted ridge behind, and perforated on the sides with a great number of holes, which give exit to the spinal nerves exhibited on the plate.

The spine is composed of twenty-four short and very angular bones, placed one above the other, and named *vertebræ*, from the Latin verb *verto*, to turn, the body being capable of turning in every direction on account of those joints.

The vertebra occupy three regions, the neck, the back, and the loins, on which account they are distinguished into *cervical*, *dorsal*, and *lumbar*. In each of these classes they present peculiar characters, and are commonly distinguished by their numerical names, counting from above; there being seven *cervical*,

twelve *dorsal*, and five *lumbar*. I will observe, however, that each vertebra has a pretty close resemblance to the one preceding, excepting the seventh, (counting from the head,) which differs from the rest only in being longer, and in having its spinous apophysis more elongated—a circumstance which is sometimes of use for parents to know, as I have seen persons who have been confined on their backs, by quacks, for disease of the spine, when in fact there was nothing the matter.

The spine, which combines ligament with solidity and flexibility, serves to support the head and chest. It is the seat of all the motions of the trunk, of which it transmits the weight to the pelvis, or lower part of the body.

It lodges and protects the spinal marrow, and the membranes which envelope it. It gives passage to the spinal nerves, and to many vessels. It affords insertion to a multitude of muscles and ligaments, both before and behind, such as the *diaphragm*, the *latissimus dorsi*, *sacra-lumbalis muscles*, &c.

The vertebra, or joints which form the spinal column, are bound together by strong ligaments and tendons, equally distributed over every part of the spine, and are the cause of the great strength of the back in supporting heavy burthens. Without these ligaments and tendons, an individual would be altogether incapacitated for exertion, or being in the upright position, and when they become debilitated in any part of the spine from disease, there is an inharmonious action or an unequal pressure exerted on the bones, which has a tendency to cause the spinal column to bend in an unnatural manner; hence arises what is termed curvature of the spine.

The only evidence which I have to offer in respect to curvature taking place, unattended with disease of the bones of the spine, is the following observations on certain modifications of disease of the spine, by Dr. J. K. Walker.* He observes: "I have hitherto called the reader's attention to those cases where more or less pain in the spinal column indicates the presence of active symptoms; and I trust I have shown the fallacy of that treatment, which, where inflammation exists, is worse than frivo-

* Of Caius College, Cambridge.

lous—I mean the premature use of liniments. There is, however, a class of cases which may be materially benefited by them, and which, to an unprofessional examiner, or even to a prejudiced practitioner, might pass for spinal diseases. I think I shall be borne out by the experience of those who have been much in the habit of examining the vertebral column, that there occasionally occurs in the dorsal portion a very discernible lateral inflexion, of which the convex portion inclines to the right, without the *slightest pain* on examination. This, however, I have observed oftenest in children, where there is unusual delicacy of habit; and I am confirmed in this opinion by a similar remark made by Professor Hufeland, of Berlin, who also states, that he has recommended with great success, the occasional bathing of the spine of children so affected, with some spirituous lotion, or even common brandy. This constitutional debility, let it be remarked, may create a similar appearance in a more advanced age, or it may be the consequence of some original malformation. I am ready to admit, however, if there is any supervening declension of the general health, the vigilance of the practitioner cannot be too soon directed to that part. Every one is aware, during the period of dentition, how many anomalous symptoms arise in children; how very flexible is their spine, and how often does it assume an appearance of deformity, so as to excite an alarm, and even sometimes to deceive the practitioner. In some, perhaps from bad nursing, a slight tendency to deviation may arise, so as to call for the greatest vigilance to establish the rectitude of the vertebral column, yet no tenderness may be present. Those who reason on the omnipotence of the spine to produce disease, seem to forget that there is also such a thing as muscular power concerned in MAINTAINING THE ERECT POSTURE OF THE BODY, and that if any cause exists, which has impaired the integrity of such muscular power, the patient may not be always able to sustain the perpendicular position.”

Symptoms.—The symptoms in this division of the disease, are in many particulars different to those mentioned in the first division. The first and most common warning an individual has of approaching deformity, being want of power to move some one of the extremities, such as an arm, foot, or leg, and not unfre-

quently the tongue becomes immovable for a time. These symptoms vary according to the location of the curve, and may take place in an individual suddenly, when in the enjoyment of apparent health, and a considerable length of time before the curvature is perceptible.

Cause.—The most common cause which produces this species of deformity, is a want of action, or free circulation of blood, in the tendons and muscles of some part of the spine. This may be produced by slight disease of the spinal marrow and nerves which may supply the part with nervous influence; it may also be produced by external injury to the part.

Diagnosis.—The following diagnostic circumstances between this and the former division of this disease, will in general enable us to distinguish between the two species of curvature.

In a case of curvature, accompanied with caries, there will always be pain produced by gentle pressure on or near the deformed part. In a case of curvature, unaccompanied by caries, there can be no tenderness whatever felt on pressure. In the former division of the disease, the general health of the individual will be impaired for a considerable length of time before the deformity makes its appearance. On the contrary, in the latter, the individual may apparently be in perfect health at the time when the deformity is first discovered.

Treatment.—I consider the common mode of treatment used in disease of the spine, such as, establishing caustic issues, introducing setons, and confining the patient constantly in a lying position, more objectionable in this division of the disease than any other, because they are calculated to produce greater weakness of the tendons and ligaments which support the spine. It cannot, however, be denied, nor do I wish to insinuate otherwise, that patients have got well upon this plan. Caustic, by stimulating, encourages the tendons and ligaments to act more energetically; but the pain and smarting which would be produced by their use, would prevent the patient from taking exercise sufficient to invigorate his constitution. In regard to the use of issues, Professor Rusk remarks, that “numerous observations and long experience have proved to him that issues rarely produce the desired effect, and that they even frequently accelerate the progress of the

disease in a late stage. At an early period, whilst the disorder is confined to the ligaments alone, the practice is highly objectionable, because it prevents the application of other modes better calculated to restore the sufferer to his natural figure." Fortunately for the afflicted, the remedies which I have found effectual in the removal of this species of deformity, can be used without causing the least pain, and can be safely applied to any individual under almost every circumstance, without the least danger, and may be applied by any person who has common understanding. It consists merely in procuring a large discharge of matter from the relaxed and debilitated parts, by such remedies as will produce the effect without injuring the texture of the internal parts, such as the irritating applications mentioned on page 132. Cupping, or applying leeches to the affected part, can be of no use in the removal of this species of the disease, but may do great injury by debilitating the patient. Confining the individual on his back is altogether wrong. Where, however, a tendency to become fatigued exists, the avoidance of too long continuance in the erect attitude, and the adoption of the recumbent posture for an hour or two in the middle of the day, for several months, furnish the best mode of removing the deformity, as it has a tendency to increase the strength of the debilitated membranes; but if one of the joints of the spine should protrude, and it is found that on assuming the recumbent position it is restored, it will, of course, be proper to permit or require the individual to continue in that position for a few days. When, however, such a patient, on assuming the recumbent position, becomes perfectly straight, and free from pain on pressure, it is absurd to designate such case a spinal affection. Such a case might possibly be relieved by liniments, shampooing, or some such foolery; yet we should not be warranted in pretending that those remedies were a cure for curvature or disease of the spine. A very eminent European physician, in speaking of the treatment of curvature of the spine, observes, that "Proper rest is of much consequence, because the patient, being weak and easily fatigued, if a state of comfortable rest were not observed at those times when the necessary exercise is not resorted to, the weakest part would be likely to suffer from the effects of exhaustion and languor, and the spine, in con-

sequence, become more distorted." Occasional ease and rest should consequently be given to the muscles of the spine, by the patient's lying down, either on an inclined plane or on a couch, and this he should do whenever he feels fatigued, or a want of such rest. It has been a very common practice of late years, to confine young ladies to the inclined plane, or to the couch for months together, often without their being allowed to rise during any part of the day; and this wearisome rest alone has been considered sufficient to cure the distortion; but the practice is extremely irrational and injurious, and should never be allowed. It invariably injures the general health, and by augmenting the debility of the muscles of the back and whole constitution, increases the curvature, and sometimes produces additional complaints of a serious nature. Sir Astley Cooper relates the case of a lady, who submitted to this vile practice for many months, and in the end rose without any favourable alteration in the state of the spine; but a disease in the bladder, which afterwards spread to the womb, and proved fatal. Mr. Abernethy also objects to a state of constant recumbency, and to lying down in a constrained attitude. He says: "I would by no means deprive the patient from taking that degree of active exercise which is conducive to health." Patients afflicted with the present complaint should have rest, but it should be only occasional, taken at any time in the day that they find need of it, and not continued so long as to interfere with the necessary exercises, or to injure the general health. The best thing for the patient to repose upon, is a moderately hard hair mattress, which may be placed on an inclined plane, if preferred." Friction with a coarse cloth saturated with salt, is of the greatest importance in the treatment of this species of curvature. It is known, or ought to be at least, that exercising any part of the body, has a tendency to strengthen the muscles of the part. Friction acts in the same way as exertion of any kind does, only that its effects are confined to the part to which it is applied. In fact, I believe any one of the external muscles could be made to act with three times their usual vigour, merely by rubbing them occasionally. When we find the spine is becoming curved, it will therefore be proper, in connexion with the remedies already mentioned, to use friction freely on

the part of the spine towards which the projection appears to be inclined; that is, if there is a projection backwards, and the individual leans forward, the friction should be applied to both sides of the spine on the back freely; but if the projection should be to the left side, and the individual leans to the right, then it will be proper to apply the friction to the left side alone, which should be done extensively, rubbing all the left side at least twice a day, until the skin becomes red. If the patient should be a young child or delicate female, and cannot bear the friction sufficiently long, mustard plasters may be applied to the parts, and let remain on long enough to produce redness of the skin.

Sometimes the administration of strengthening remedies will assist the foregoing means. I have used the following pill with much advantage: Take of subcarbonate of iron, a drachm and a half; ipecacuanha in powder, fifteen grains, simple syrup, or mucilage of gum arabic, a sufficient quantity to form the whole into a mass of proper consistence; divide it into thirty pills, one of which may be taken every day; but if the patient is very much debilitated, or the bowels costive, two or three should be taken. If there should be indications of a torpid condition of the liver existing, it will be proper to administer a small quantity of calomel every two or three days; it may be given in combination with the extract of dog-wood bark, as directed on page 136. If the remedies I have recommended be judiciously applied and properly persevered in, they will be found to remove the various species of the disease of the spine, in cases where it is possible to remove them, in one half the time which is required for patients to use the common treatment, such as being confined in bed, applying the costic, introducing setons, hanging on the gocar, or having cups and leeches continually on the back.

I have now closed my brief and desultory account of what I believe to be the cause of many of those distressing nervous diseases, of which there is so much talk about; and doubt not but many of my readers will think I have been too prolix, but those who are so unfortunate as to be afflicted with it, will excuse me, and those who have been so fortunate as to have escaped its ravages, will pardon me, when they find that what I have said embraces a catalogue of diseases which would require ten vol-

umes as large as this to contain a full description of. I feel sorry that I have found it necessary to recommend remedies for disease of the spine, and its contents and appendages, different in some particulars to what has been recommended by veterans in the profession, and now in use by hundreds of my cotemporaries, and trust no other apology will be necessary than to state my reasons for doing so, which are the following.

1st. I have found the remedies which I recommended to be applied in the different divisions of the disease, to answer the indications for which they were applied in almost every instance.

2nd. That I have employed the treatment recommended in the books, and used indiscriminately by medical men during the last forty years, and found them altogether useless, not only in my hands, but also in the hands of others, some of whom stand at the head of the science, or at least are supposed by those who have no knowledge of the profession, to occupy that elevated station.

3rd. That I have thought it less injurious to society and human feelings, to expose a cotemporary who may be employing a remedy which he knows never has made a cure, than to have an individual's feelings wounded in having to struggle through life with a hump on his back. If, however, my cotemporaries can produce one person who has been restored within the last six years by the usual practice, such as constant cupping, confinement in bed a year or two, hanging their patient on a gocar, applying the springs, braces, or screws, I will recant.

DISEASES OF FEMALES.

There is no branch belonging to medical science which claims the attention of parents and guardians, more than those affections to which the female sex is liable; and I would most affectionately advise them to try to acquire some knowledge of the female constitution. The reasons which I will advance for the purpose of convincing parents of its importance, are briefly the following:

1st. The natural diffidence which exists in the mind of a young lady, very often prevents her giving a physician as full an account of her complaints, as is generally sufficient to enable one who is not thoroughly acquainted with the symptoms of female diseases to detect the cause, or to prescribe with success. I have known instances where this backwardness existed to such a degree, and the physician being unable to form a correct judgment of the nature of the case from remote symptoms, or slight hints which the patient had given, to suffer and die of fever without the actual cause of the affliction being discovered.

The second reason which I would advance in the cause is, the great danger to which young females of all classes are exposed at this time. The daily prints of this city, it is well known, contain advertisements setting forth quack remedies for the cure of all diseases; the young and unsuspecting female being indisposed, and fearing to state her sufferings to a physician, procures these articles of medicine, sometimes without the consent of her friends, and takes them daily with the expectation of being restored, until there is a cancer produced, or some of the female organs are displaced, rendering her incurable. I could advance reasons showing the importance which is attached to this subject, and could relate cases of young females being injured, not only in body, but in morals, from the use of those and other injurious articles of medicine, but must refrain; "a word to the wise is sufficient."

It is not my intention to enter into a full detail of all the complaints to which females are liable, but merely to relate the cause, symptoms, and treatment of some of the most common and dangerous diseases. And I will remark in this place, that I have entered upon the task with much reluctance; but I consider it my duty to try, not only to convey all the information I can in way of medical advice, but also to warn parents of the danger which their daughters are in.

DISEASE OF THE GENERAL HEALTH OF YOUNG FEMALES.

This complaint is one of the most common to which young females are subject, and is the cause of many others.

Symptoms.—Soon after the commencement of this disease, the countenance is observed to have become rather pale and thin; the lips are pale, and with the chin, are frequently observed to be tremulous on speaking; the surface of the face is frequently affected with an appearance of oily and clammy perspiration, especially about the nose; and there is usually a degree of sallowness and darkness of the complexion in general, but principally about the eyes and mouth; the face is sometimes rather bloated, and the skin coarsish at first, but afterwards there is some degree of emaciation.

The tongue is almost invariably much loaded; sometimes, however, only slightly, whilst its edges are clean and red. In other severer cases, a crust has been formed over the tongue, and has peeled off all at once, or in patches, leaving the surface of the tongue morbidly red, smooth, and tender. But generally, the tongue is loaded, swollen, and tender to the touch. A tendency to perspiration is observed on the slightest surprise or exertion, and occasionally, though not very often, in the night or early in

the morning; the skin is, in general, cool, rather moist and clammy; the hands and feet are apt to be cold; the ends of the fingers rather livid, and the nails frequently assume a purple hue.

The appetite in this disease is variable—sometimes impaired, at others unnaturally craving, without the power to take food. The digestion is apparently good in some, and in others it is attended with distention of the stomach, flatulency, eructation, pyrosis, and even vomiting. The bowels are at first constipated, afterwards relaxed and confined alternately, the evacuations being unnatural in both states, especially in the relaxed condition. Pain in some part of the bowels is not uncommon.

During the whole course of this disease, the patient is peculiarly liable to a flustering irregular action, or violent palpitation of the heart, and even syncope.

Cause.—This disease frequently takes place without any apparent cause, but is often produced by sedentary habits, want of active exercise in the open air, indulging too long in bed in the mornings, unhealthy or indigestible food, impure air, &c.

Treatment.—The first object is to evacuate and regulate the bowels. It would be difficult, however, to determine whether more benefit has accrued from the use, or harm, from the abuse, of purgative medicines at the present day. It is well known to the experienced practitioner, and ought to be by parents, that if those medicines be given unduly, they produce or keep up, in many instances, the very disorders they were intended to remove. This is known to be true, not only in regard to the stomach and bowels themselves, but also in regard to some of those organs which are apt to be affected symptomatically. In fact, if the due limits in giving purgative medicines in this disease be exceeded, a state of irritation and distention is maintained in the stomach and bowels, of exhaustion and nervousness in the general system, more distressing than the original disorder.

Purgative medicines should, therefore, be given (where their employment is necessary for a long time,) in such manner and combination as not to produce the effect of keeping up irritation in the digestive organs. This can be accomplished by combining some aromatic with the purgative, and by avoiding too considerable or too repeated doses of it, and by using, at the same time, a mild and nutritious diet.

After a free purgation, therefore, at the beginning, the object is to induce one full and constant evacuation daily, avoiding, as much as possible, all irritating operation of medicines. For this purpose, the following pill has been of great use in my practice: Take of compound extract of colocynth, rhubarb, each, half a drachm; calomel, twelve grains; oil of caraway, five drops; syrup of any kind sufficient to form the whole into a mass; and divide it into twenty pills. These may be taken in doses of two or three at bed-time, when occasion requires them.

The best common purgative medicine in this disease is the senna and manna. The decoction of aloes, or infusion of rhubarb sometimes answers very well.

After the bowels have been thoroughly evacuated and regulated, it will be proper to take some slightly strengthening medicines to invigorate the system. For this purpose, I would recommend the following: Take of sulphate of quinine, twenty grains; ipecacuanha in powder, ten grains; cinnamon powdered, five grains; form a mass, and divide into twenty pills. One of these taken morning and evening, will be found to invigorate the body, and produce a natural appetite.

Physicians, when they are called to prescribe for a young lady labouring under this complaint, are too apt to order some of the drastic or debilitating purgatives, such as epsom salts, large doses of calomel and jalap, &c. which often have a tendency to produce the following complaint.

SUPPRESSION OF THE NATURAL SECRECTIONS.

This is a very common complaint of females, and although sometimes borne without any material inconvenience, seldom fails ultimately to injure the health, and unless remedied, often leads to the most distressing and dangerous consequences.

The principal symptoms attending this affection is the disappearance of the usual monthly discharges, with which various

strange and unusual feelings are associated, and differing in different individuals, such as fever, dryness of the skin, flushing of the face, headache, pains in the limbs and back, costiveness, difficulty of breathing, palpitation of the heart, and sometimes bleeding from the nose, stomach, or lungs.

Cause.—The most frequent cause of this suppression, is any thing that has a debilitating tendency, such as improper medicines, great anxiety of mind, suddenly suppressed perspiration from cold, sudden alarm or terror, protracted fever, impure air, want of exercise, &c.

Treatment.—The principal indications of treatment are to excite the action of the vessels of the female organs, and to increase the tone of the system in general when weak or enfeebled, or to allay irritation in it, when the complaint occurs in a full plethoric habit. In order to allay general irritation, and at the same time to excite the vessels of the diseased parts, I would recommend the following pill. Take of calomel ten grains, tartar emetic four grains, Turkey opium in powder, four grains; form a mass by mixing it with syrup, and divide it into ten pills.

One of these may be given in case of tightness about the chest or in case of pain in any part, every three or four hours. It is undoubtedly, one of the best alteratives which can be resorted to in this disease, and may be taken as well by the weak as by the strong.

After the general irritation and pain is removed in some degree, the following may be given; take of sub-carbonate of iron, a drachm and a half, ipecacuanha in powder, fifteen grains, extract of gentian half a drachm, socotorine aloes in powder, six or eight grains, simple syrup or mucilage of gum arabic, a sufficient quantity to form the whole into a mass of a proper consistence, divide it into thirty pills; two of which may be taken daily if the patient is in a low weak condition, in order to give tone to the general system; but if the patient is of a full habit and the strength not much impaired, the savin powder, tincture of black hellebore, or madder will be more proper; in all cases daily friction over the loins and lower extremities will be proper, and the bowels must be kept in an open state by the use of a grain or two of aloes taken as often as occasion may require; the warm hip-bath should be used at least twice a week, daily moderate exercise on foot or

on horseback alternately, is of great benefit; the diet should be mild and nutritious.

Besides the foregoing remedies, I have used the following with success in cases difficult to cure. Have one ounce of spurred rye (*ergot*) boiled down in a quart of water to a pint, four table spoonfulls of the strained liquor to be taken three or four times a day; it is very active in its operation, and must be used cautiously.

When the complaint occurs in women of full habits, six or eight ounces of blood may generally be drawn from the arm with advantage, about the time the discharge should appear; and if the suspension should have suddenly occurred during the flow, blood-letting is often absolutely necessary.

There are many other remedies which I could name that have been recommended in cases of this kind, but consider them dangerous, and unless used as prescribed by a physician they are seldom necessary.

I would caution females against using those remedies, recommended by quacks or old women; they are extremely dangerous and generally produce cancers or some incurable disease of the organs. The following complaint is generally the result of these remedies.

PAINFUL AND IMPERFECT SECRETION OF THE NATURAL EVACUATIONS.

(*Dysmenorrhœa.*)

Dysmenorrhœa is a common and in general an extremely harassing affection. It may occur at any period between the commencement and cessation of the secretions; but it appears to be most common between the twentieth and thirtieth years of age. In many instances severe pains are experienced in the back, limbs, and lower part of the abdomen for five or six hours previous to the appearance of the discharge; this, however, soon ceases, and an immediate aggravation of the torturing pain follows; sometimes the secretion begins to take place moderately with little or no previous pain; but in an hour or two they become suddenly arrest-

ed, at the same time that violent pain comes on in the hips, loins, back, and thighs, with a distressing sensation of forcing or bearing down, occasionally a very slight discharge continues uninterruptedly for three or four days, accompanied throughout with extreme pains in the lower part of the body; and in some rare instances, the evacuation although attended with great suffering, is sufficiently copious and prolonged in its course, and may even exceed the regular duration, and quantity of an ordinary healthy evacuation. In by far the greater number of cases however, the evacuation as has been just stated, begins to flow moderately, and after an hour or two ceases again under great sufferings. Some patients are much harassed by severe headache or nausea, and paroxysms of violent retching and vomiting during the first few hours of the complaint.

Dr. Dewees observes, that "there are two distinct states of this affection, which in a prognostic point of view are worthy of attention. That the *mammæ* sympathize strongly with the uterus becoming tumid and often very painful and tender to the touch; whilst in other cases the breasts remain wholly free from any affections of this kind."

Cause.—There is a great deal said about the cause which produces this disease by authors, but I find they have generally mistaken the effects for the cause, in proof of which I offer their want of success in its treatment. The true cause of the affection is an irritable condition of the organ produced by highly stimulating articles of diet or medicine and not unfrequently by congestion occasioned by an inharmonious action of the nerves. This is sufficient to produce the symptoms in some degree at any time, but at the regular period it is more liable to take place on account of the organ then being naturally in an irritable condition and of course more liable to disease.

Treatment.—It is my intention to speak of the treatment of this disease under two heads or divisions. 1st. That which is proper to be used as a palliative or for the purpose of giving temporary relief. 2nd. That which will have a tendency to remove, and make a permanent cure.

As a palliative I know of no remedy equal to camphor. Dr. Dewees recommends this article of medicine to be given in large

doses, ten grains at a time. I have known more injury than good result from this plan, but when it is given in moderate doses properly prepared, it seldom fails in giving relief. My method has been to take of pulverized camphor one drachm, powdered gum arabic two drachms, white sugar two ounces, rub them well together and add six ounces of cold water; this ought to be kept in a bottle and have it well shaken when used, and one tablespoonful of the mixture taken every half hour until the pain ceases. It is sometimes of the greatest importance to administer remedies with the view of producing perspiration. To promote this intention, it will be proper to confine the patient to bed, and to direct the use of warm diaphoretic drinks such as a tea made of elder blossoms, or bone-set. Opium, given in full doses with small portions of ipecacuanha so as to excite nausea, but not vomiting; also, a very excellent palliative where the patient is capable of taking it without the disagreeable effects which it is apt to produce, is one grain of the former to half a grain of the latter, and the proper quantity to be taken every three hours. The opium may be advantageously given in combination with camphor, in the proportion of a grain of the former to three of the latter, every hour until the symptoms are mitigated.

For the purpose of making a permanent cure, a number of remedies have been spoken of. Dr. Dewees recommends the tincture of guaiacum and regards it as incomparably the most efficient means he has used in counteracting this affection. He gave it in as large doses as the stomach would bear, and its use persisted in for three or four months and even longer, if its good effects where not previously obtained. Dr. Eberle says, "I have employed it occasionally, but with very indifferent success. The remedy by which I have most frequently succeeded in effecting a cure, is the extract of stramonium." His mode of employing it was to give the one-eighth of a grain of the extract three times daily, commencing about four days before the expected return of the attack.

I have given these remedies and a great many others which had been recommended by my worthy cotemporaries, Jackson, and Chapman, but have found them worse than useless, as I presume they have found them to be themselves. The remedies which I would recommend for the purpose of removing the cause

of the affection is such as have a tendency to allay the excitability of the organ affected, and of removing the nervous irritability. For accomplishing these purposes it will be proper for the patient to have particular regard to the state of the bowels and the purgative medicines which she makes use of, as any thing of a stimulating nature, such as aloes, oil of turpentine or any of the quack pills, have a direct tendency to produce the disease. The best purgative medicines which can be taken is epsom salts, flowers of sulphur, extract of butternut, and rhubarb in occasional doses; either of these ought to be taken every two or three days even if the bowels should not be constipated; at the same time for the purpose of removing the nerveous irritation, I would recommend a pill composed of half a grain of camphor, and one grain of the extract of hemlock to be taken every night on going to bed; it will also be proper to keep up slight irritation along the lower part of the spine, by rubbing the skin with the tartar emetic ointment.

If these remedies are persevered in half the length of time that is required by any other, there will be but little danger of the disease continuing long, and they are altogether harmless.

WHITES, OR FLEUR ALBUS.

This complaint consists in a discharge of a yellowish white or greenish fluid from the parts. In the mildest cases, the discharge is mostly of a whitish appearance, sometimes almost colourless, small in quantity, and unaccompanied with any irritation in the parts; but in the severer examples it is yellow, greenish, or dark coloured and thin, sometimes very acrid and highly offensive, and occasioning itching, smarting, and other local symptoms of a very irritating nature. In most cases, there is pain and weakness in the back, and a sense of general languor; and when the disease is severe and of long standing, it is generally associated with an unhealthy countenance, weak stomach, general debility, and a dry hot skin.

Cause.—It occurs most frequently in women of delicate constitutions, or in those whose strength has been impaired by profuse evacuations, low diet, sedentary living, grief, or other causes of exhaustion. Women of all ages are subject to it, but it occurs more frequently after the middle period of life, and is then most generally produced by debility and relaxation of the parts themselves, or in consequence of hard labour, frequent miscarriages, &c.

Treatment.—This complaint is often difficult of cure, and we are frequently obliged to try many remedies, before one can be found to afford much relief. When a cure is practicable, we, for the most part, arrive at it only by slow degrees; and it is, therefore, highly necessary, when a patient experiences advantage from adopting any plan of treatment, that she should persevere in it, especially if she finds her general health improved at the same time. Generally speaking, the principal object to be aimed at is, to give firmness to the general habit, and strength to the weakened and relaxed fibres of the parts, by the employment of vegetable and metallic tonics, vegetable and mercurial alteratives, cold bathing, pure air, and active exercise, aided by a mild but nutritious diet. If the case be one of long standing, I would advise the patient to take twenty or thirty drops of diluted nitric acid, in an ounce or two of an infusion of gentian, three times a day. The bowels ought to be regulated by some mild purgative medicines. I have found the following pill to answer very well: Take of compound extract of colocynth, half a drachm; compound rhubarb pill, a scruple; castile soap, ten grains; oil of juniper, five drops; beat them into a mass, and divide into twelve pills. One of these may be taken every night, or oftener, if necessary. Other purgatives may answer the purpose very well, such as the simple rhubarb, sulphur, or extract of butternut. At the same time, a wash composed of an infusion of camomile flowers, or green tea with a small quantity of alum dissolved in it, should be thrown into the parts twice a day, and if the weather be warm, the cold bath should be used once a day. Lime water may be taken as common drink, or in the quantity of a pint a day, in divided doses.

If the above means fail, I would advise a trial of the following

pill during the day, at the same time the above remedies are being used. Take of extract of hemlock, two scruples; guaiacum, in powder, one drachm; mix them, and divide the mass into thirty pills. One of these is to be taken three times a day for eight or ten days, after which the dose may be increased to two pills three times a day. At the same time, if the disease has been of long standing, the following pill may be given as an alterative: Take of calomel, twenty grains; tartar emetic, four grains; rosin of guaiacum, in powder, two scruples; rub them well together in a mortar, then with a little conserve of roses; form them into a mass, and divide into twenty pills, one of which may be taken every other night.

Preparations of steel and zinc are sometimes useful when the patient is weak; and if the foregoing means are not found to be productive of satisfactory results, I have used the following with the happiest effect: Take of sulphate of iron, half a drachm; subcarbonate of potash, ten grains; myrrh, in powder, one drachm; compound powder of aloes, half a drachm; beat them together, and divide the mass into thirty pills. Two of these may be taken three times a day. The muriated tincture of iron is an excellent form of taking steel in this malady. The dose is from twenty to fifty drops, twice daily, in water. The balsam of copaiva will sometimes be a very useful auxiliary to the preceding means. When the disease depends upon debility and relaxation of the general system, it can hardly be expected to succeed alone; but from its power of stimulating the parts, it may sometimes materially assist the general plan. It has been found to answer very well when the whites follow the final cessation of the natural secretions, and are attended with a bearing down, and other painful symptoms in the parts. It ought to be given in doses of ten drops three times a day, either dropped on sugar, or mixed with soft water by means of mucilage of gum arabic.

In some cases, which occur in debilitated persons, the application of a strengthening plaster to the loins assists in removing the complaint. The following is the best: Take of fly ointment, one part; Burgundy pitch, seven parts; melt them together with a moderate heat, and mix them so as to form a plaster.

In the majority of instances the diet should be nutritious, and

in all it must be easy of digestion, and moderate in quantity; and it is of much consequence that the patient should never forget, that a principal object in the treatment of her case is, to restore firmness and health to the whole frame, by perseverance in the use of suitable diet, exercise and change of air, in conjunction with internal medicines and local applications. When the constitution is much disordered, it is in vain to endeavour to restore it to health by the employment of strengthening medicines alone; the diet and regimen must be strictly attended to at the same time; and it is too often from a neglect of these means that women fail to gain much relief in this disorder. If the patient be of a costive habit, the removal of that state should be accomplished by the use of laxative medicines; two of the best are sulphur and the common Seidlitz powders. The last mentioned is very valuable in this complaint, because it operates in an unusually mild manner, and corrects acidity in the stomach without increasing the tendency to costiveness after their operation.

HYSTERICKS.

(*Hysteria.*)

This disease may attack females at any period between the fourteenth and forty-fifth year, seldom later or earlier. It appears under various forms, and imitates so many other diseases, and is attended with such a variety of symptoms as to denote disease both in the animal and vital functions, that it is difficult to give a just character or definition of it; and it is only by taking an assemblage of all its appearances, that we can convey anything like a clear idea of it to our readers. The disease attacks in paroxysms, or fits; these are generally preceded by dejection of spirits, anxiety of mind, effusion of tears, difficulty of breathing, sickness at the stomach, and palpitation at the heart. It very often happens that the patient feels a pain in the side or stomach, with a sense of fullness advancing upwards, till it gets into the throat.

and occasions, by its pressure, a sensation as if a ball was lodged there; (this, by writers on the subject, has been called *globus hystericus*.) The disease having arrived at this height, the sufferer appears to be in danger of suffocation; she becomes faint, and is affected with stupor and insensibility, while frequently, at the same time, the trunk of the body is turned to and fro, with alternate fits of laughter, crying, and screaming; after which a temporary delirium takes place, and a frothy saliva is discharged from the mouth. These symptoms at length subside, and a quantity of flatulency escapes from the stomach, with frequent sighing and sobbing, and the patient recovers the exercise of sense and motion without any recollection of what has taken place during the fit, feeling generally a severe pain in her head, and a sensation of aching through the body. In some cases, however, there is little or no convulsive motion, and the person lies seemingly in a state of profound stupor or sleep, without either sense or motion. Hiccough, or a spasmodic action of the stomach, is a symptom which attends in some cases of the disease. In other cases the patient is attacked with violent pain in the back, which extends from the spine to the sternum, and at length becomes fixed upon the region of the stomach, being evidently owing to some torpid action of the spinal marrow. I will mention here that this pain is generally removed by applying a few cups or leeches on the region of the spine.

Hysteric affections occur more frequently in single life than in the married. It is readily excited in those who are subject to it. Passions of the mind, or any considerable emotion, especially when brought on by surprise, as joy or grief, are very apt to induce it. It has also been known to be brought on in delicate constitutions from imitation and sympathy. Females of a delicate habit, and whose nervous system is extremely sensible, are most subject to the disease, and the habit which predisposes to its attacks, is acquired by inactivity and a sedentary life; grief, anxiety of mind, a suppression of the natural secretions, and many other causes, have a tendency to produce it.

Diagnosis.—As hysteria bears a very close resemblance to hypochondriasis, it will be proper to have particular regard to the distinction, as the two diseases require a very different mode of

treatment. They differ in the following particulars,—hysteria attacks the sanguine and plethoric, comes on about the age of fourteen; makes its onset suddenly, so as to deprive the patient of all sense and voluntary motion; is accompanied with the sensation of a ball rising upwards in the throat so as to threaten suffocation; is attended usually with much spasmodic action, and is more liable to terminate in epilepsy than any other disease.

The reverse happens in hypochondriasis. It attacks the melancholic; seldom occurs till after the age of thirty-five; comes on gradually; is a troublesome disease to cure; exerts its prominent effects on the bowels, by spasmodic pains, and is more apt to terminate in melancholy or a low fever than in any other complaint.

The difference between hysteria and syncope, is, in the latter there is an entire cessation of the pulse, a contracted face, and a pale countenance: whereas, in the former disease there is often something of a colour, and the face is more expanded; there is likewise a pulse.

It also differs from apoplexy, in which the abolition of sense and voluntary motion is attended with a sort of sterterous and great difficulty of breathing, and a quick pulse, which do not take place in hysteria.

Treatment.—The treatment proper in hysteria, will appear obvious from the nature of the symptoms. If there are signs of an inordinate determination of blood to the head from a suffused appearance of the face, or if the pulse be active, full, and tense, or the general habit of the patient manifest plethoric, bleeding to an extent sufficient to make an evident impression on the circulation should be immediately practised. This will be particularly useful in cases that occur in young and sanguineous females, from the sudden suppression of the natural secretions, and will remove the danger of apoplexy. In instances of this kind, eight or ten ounces of blood taken from the arm, rarely fails to moderate the symptoms, and often to induce a complete intermission of the spasmodic actions. With the view of equalizing the circulation and nervous excitement, applications of mustard may be applied to the extremities, or warm bathing may be used to advantage.

In prescribing medicine in this disease it is of the greatest im-

portance to have particular regard to the nature of the case. If there is reason to suppose that the paroxysm proceeds from some indigestible substance taken into the stomach, an emetic should be given as soon as the patient is able to swallow; for this purpose, I have used the *sulphate of zinc*, in doses of ten grains, with great success. In some instances where the disease is produced by irritation of the stomach, violent retching, attended with excruciating pain in the organ; vomiting should be encouraged by copious draughts of tepid water, or by moderate doses of ipecacuanha. As soon as the offending contents of the stomach are entirely removed, a full dose of laudanum and castor oil ought to be given, say half a teaspoonful of the former to one tablespoonful of the latter medicine, providing no symptoms of congestion of the brain are present, such as a flushed countenance, &c.

When the hysteric paroxysm is excited by mental emotions, such as joy, terror, or grief, narcotic and antispasmodic medicines are proper. Laudanum, assafoetida, musk, sulphuric æther, and castor may be used. But what I have found most beneficial, especially if the attack return frequently, is the following mixture,* which has a peculiar tendency to remove congestion from the female organs; † pulverized gum camphor, one drachm and a half; ‡ pulverized gum arabic, half an ounce; § white sugar, one ounce; || spring water, six ounces; ¶ mix and shake it when used; one tablespoonful to be given every two hours until relief in some degree is procured.

It is sometimes impossible to introduce medicine into the stomach during the paroxysm. When this is the case, an enemata ought to be resorted to; for this purpose take thirty or forty grains of assafoetida, dissolve it in six or ten ounces of water, with the addition of a tablespoonful of laudanum, and throw into the bowels with a syringe.

I cannot leave this very disagreeable and distressing subject

* R.	† Pulv. G. Camph.	℥jss.
	‡ — — Arab.	℥ss.
	§ Sacch. Alb.	℥j.
	Aq. font.	℥vj.
	¶ Mix and Shake	

without some practical remarks relating to the general cause and prevalence of the disease in this city. And I feel sorry in having to say, that it is in most instances brought on by improper medicines, either administered by physicians, or it may be by the sufferer herself, medicines which are, in my opinion, the principal cause of the generality of those distressing diseases, both of a moral and physical nature, to which young females are afflicted. And I think there is no subject which ought to engage the attention of parents more than the medical treatment of their daughters, especially at that period of life in which this disease is most likely to make its appearance : and no parent, in my opinion, fulfils his duty to his offspring, who will employ a physician without first being acquainted, not only with his professional abilities, but also of his moral character. Nor are parents justifiable in permitting their daughters to use those quack medicines which are advertised as certain remedies for all diseases : they are generally composed of the most drastic and irritating articles, and cannot fail in producing in the delicate female the most distressing diseases.

For illustration, I will relate two or three cases which has lately come under my notice.

Case 1. In the summer of last year a lady of fifteen years of age, who resided in the country, came to Philadelphia for advice, being greatly annoyed with palpitation of the heart and had been considered, by her country physician, to have disease of that organ. I was requested to attend her, by her married sister, who resided in the city ; after about six weeks attendance, she appeared to be quite relieved of her distressing palpitation, and to all appearance, was in perfect health, excepting that the bowels were somewhat costive. She had a desire to return to the country, to which I consented, and advised her to take some cooling purgative, such as magnesia, as occasion might require. I heard nothing more of her for three days, and supposed her to have left the city ; but to my astonishment, on the third day after I had seen her last, I was requested, in great haste to visit her : on my arriving I received the following history ; on the day before she was to leave the city, an old female acquaintance advised her to take a box of quack pills with her for the purpose of regulating

her bowels: her sister, for the purpose of trying their effect, procured a box, and gave her a dose on the evening previous to her intended departure; during the night she was attacked with severe colick pains in the stomach and bowels, which rendered her unable to leave the city; during the following day, she was perceived to laugh, and shortly after to be in tears, without any apparent cause. During the evening of the same day she was seized with violent convulsive laughing, alternating with crying and screaming, which alarmed her friends very much; but as it was late, I was not sent for until the next morning. On my arrival I found her labouring under occasional fits of syncope and mental derangement, which continued several days. After she recovered so as to give a correct account of her feelings, she complained of severe pains in almost every part of her body.

Case 2. On the 10th of October last, I was sent for in great haste, to see a young lady who was supposed to be dying; when I arrived, the mother of the young female informed me that her daughter had been labouring under slight indisposition for several days, and she had been advised by her neighbour to call in a physician who was attending her servant girl at the time, which she accordingly did. The doctor informed her, after asking some questions, that her indisposition proceeded from being too much confined to the house, and invited her to take a ride with him in his gig, to which she very properly objected, on account of him being a stranger. He then told her that he would leave her some medicine to take during the day, and that he would call in the evening to see what effect it had, and as she would not go riding, he hoped she would not object to a walk and enjoy the evening breeze. The young lady took the medicine, as directed; but in half an hour after she had taken the last dose, she complained of fullness about the heart, and shortly after fell on the floor, in which condition I found her on my arrival. She was lying on her back, had sunk into a state of complete insensibility, with the extremities extended and relaxed, the eyes closed, the teeth firmly locked, and the breathing slow. It was impossible to get her to swallow, and as a matter of course, I had to employ external remedies, such as applying leeches to the temples, cups over the region of the heart, and mustard to the extremities. In

about an hour after, she began to look up, and inquire what had occurred. She is about sixteen years of age, of a sanguine appearance, and extremely delicate. The hysterical fits continued for a week or ten days, when she recovered.

The doctor called to have the pleasure of a walk, but when he heard the effects which his medicine had, he left the house, and has not been seen in the neighbourhood since. I am told, however, that he carries his medicines in his pocket, which appears singular in a city where we have drug stores at almost every corner.

I could relate a number of similar cases, but do not think it necessary, as I trust what I have said will be sufficient to cause parents to be on their guard.

FINAL CESSATION OF THE NATURAL SECRECTIONS.

This evacuation seldom ceases suddenly, but for some time before its stoppage, becomes somewhat irregular, both as to the period and the quantity. The time of the final termination is always a critical one, because the constitution then undergoes a considerable change, and there is often a strong tendency to the formation of obstinate and painful chronic complaints.

The indications of treatment at this period, should be to remove irregular local irritation, whenever necessary, by gentle laxatives. The following has answered very well in my hands: take of epsom salts one ounce, mint water five and a half ounces, antimonial wine two drachms, tincture of senna half an ounce, mix: two or three tablespoonsful of this taken every day or two, if the individual does not feel well, will prevent danger of internal congestions. To prevent nervous irritation, or painful mental emotion, I have administered the following pill with benefit: take of extract of hemlock, extract of white poppies, of each, a drachm,

ipecacuanha in powder, fifteen grains, mix them well, and divide into thirty pills, two of which may be taken at bed-time, and if the symptoms require it, one may be taken every three or four hours during the day. The diet should be nutritious, but plain; the exercise moderate, and costiveness carefully prevented by attention to diet.

When the discharge disappears suddenly in women of a full plethoric habit, the diet should be more spare than usual; and if any disagreeable symptoms arise, such as difficult breathing, or palpitation of the heart, it will be proper to have five or six ounces of blood taken, and every other day at least, a little purgative medicine. The following will answer very well: Take of compound infusion of senna, an ounce and a half; cinnamon water, two drachms; manna, one drachm; epsom salts, two drachms, and mix for one dose.

It is a very common occurrence at this time of life, for ulcers to appear on different parts of the body, but more generally on the lower extremities; they ought to be regarded as critical discharges, and the wisest practice is not to interfere with them, further than is necessary to keep them clean, and prevent them from spreading.

CANCER

The clouded, ambiguous, undecisive state of the art of healing, has been confessed and lamented in every age. It has often furnished the gay with materials for wit, and infused into the more sober, scepticism or disgust. Many different causes have been assigned on various occasions, for the slow progress and imperfect condition of this important branch of natural science; but among the several impediments that have been mentioned, I do not recollect of ever hearing the following which I believe to be the princi-

pal one existing in our day. It is those who have written upon this subject, have presented to us false lights like some of our teachers of the science in this city. Their brilliancy attracts but to lead to disappointment and error. They have, in this disease, as in many others of equal importance, substituted some vivid and agreeable fancy, for the more sober but laborious research after truth. In fact, so vague and child-like are the arguments which have been set forth in regard to the symptoms of true cancer, the parts of the body most liable to its ravages, the modes of treatment, &c. that I find it impossible to introduce any thing in the way of convincing my readers that what I am about to say on the subject, is all that is necessary to be said and all that can be done with the hope of giving permanent relief.

Symptoms.—When cancer takes place in the breast, it usually commences with a small indolent tumour that excites little attention. In process of time, this tumour is attended with an itching which is gradually exchanged for a pricking, a shooting, and at length a lancinating pain; a sense of burning, and a livid discoloration of the skin. And, however difficult it may be to determine the precise point of time, in which the scirrhus first becomes converted into a cancer, where those symptoms are united their can be no risk in calling the tumour by the latter name. After the disease has been in existence for a shorter or longer period, there are adhesions formed which give the integuments a puckered appearance. The tumour daily enlarges and feels knotty to the touch of the finger; the subcutaneous vessels are distended with blood, and show themselves in dark contorted ramifications. The march of this disease is sometimes slow, at others rapid; and at length the skin gives way sometimes in several places to the ulcerative process, and a small quantity of very acrid matter is thrown out; the ulceration continues to advance, spreading wider and deeper, till a considerable extent of surface becomes exposed and a broad excavation is scooped out, with a discharge of a most peculiar and offensive fetor.

When cancer attacks the uterus, it is known by tensive lancinating pain in the organ, shooting through the region of the pelvis, indurations in the part sensible to the touch, and often an immoderate flow of the whites, or other secretions. As soon as

the ulceration has worked to the surface of the organ, there is a sanious or reddish discharge, characterized by the peculiar fetor belonging only to the cancer.

On the tongue, lips, or any other part of the skin which is attacked by this disease, it usually commences with a small wart or pimple, which hardens by degrees, grows irritable, and, in a short time, affects the neighbouring glands, and finally ulcerates.

Cause.—Cancer is often produced by a cold and variable climate; a deranged state of the general health; the change effected in the constitution of women at the time when the usual secretions altogether cease; injury done to the uterus at the time of confinement, by improper interference on the part of the attendant; and another cause which may be recorded among the exciting, is the immoral habits of males in this city. It is a deplorable fact, that hundreds of the most virtuous and amiable women become victims to this loathsome affection, from the loose habits of their husbands, associating with, and breathing the impure atmosphere produced by a certain class of persons who infest this city, and are kept by some of the male inhabitants, notwithstanding there is not one in a thousand, who has not cancerous ulcers about them, which are generally produced immediately after they become the inmates of those miserable, polluted dwellings which they inhabit. But, occasionally, I meet with a case of the disease where there is no apparent exciting cause, and must consider a predisposition in the organ or part affected, as having been the cause of the malady.

Diagnosis.—The distinguishing marks of this disease are, its hardness to the feel, it being perfectly circumscribed, so that its whole extent and limits, unconnected with the surrounding parts, may be distinctly felt; it never, or very rarely occurs in any of the textures, excepting the excretory glands or skin; and especially its power of contaminating other parts in its vicinity, either by direct communication, or through the medium of the absorbents.

Treatment.—There is, perhaps, no complaint in the whole catalogue of human maladies, in which there is a better opportunity afforded, for impostors to gratify their nefarious designs, than is afforded by this affection. The disease, when in that state which

might be benefited by remedies, is tedious of cure, and the sufferer, being aware of its destroying tendency, is ready to lay hold of every chance of cure, and will not generally trust to one remedy a sufficient length of time, notwithstanding it may be offered by the most skilful physician; but will try every means she hears of, though they may have originated from the most absurd source. I have seen a number of persons in this city who have spent all they possess in procuring quack nostrums, and at last were obliged to go to the alms-house, without having received the least benefit. I feel certain, that there has not been a case of the disease removed, or in the least benefited in this city during the last six years, notwithstanding there are thousands of those poor debased wretches of both sexes who continually use the specifics.

In the early stage of the disease, or in that stage called scirrhus, or unbroken cancer, the best local remedies are those which are cooling and astringent, being calculated to repress inordinate or irregular action in the blood-vessels of the part, and to promote absorption; with which, alterative and tonic medicines must be given internally. An excellent lotion for this purpose can be made with the following articles: Take of sal ammonia, two drachms; water, five ounces; refined spirits of wine, an ounce; mix and bathe the tumour with it three times during the day and night, by saturating four or five folds of a linen cloth, and applying it to the part.

The ointment of hydriodate of potash, made by mixing together half a drachm of hydriodate of potash, and an ounce and a half of recent hog's lard, always relieves the pain of cancer, and is sometimes of very signal service in lessening the size and hardness of such tumours. It will not unfrequently disperse very suspicious tumours in the breast, and other parts. The size of a nutmeg may be rubbed into the part twice a day; but its use should be discontinued for a week or two, occasionally; because, from being a very active medicine, it will not be proper to continue it over five or six days without an intermission. It may be advantageously used by alternating with an application of a warm bread and water poultice, or a poultice made with figs boiled in milk. After using the ointment two or three days, apply either

of the poultices, and let it remain on the part twelve hours. The employment of a little camphorated mercurial ointment, rubbed into the tumour twice a day, is another local means in common use among medical men; and those who wish to try it, may take about the size of half a nut, and rub it into the tumour twice a day with the end of the finger; but I do not recommend it, unless there is suspicion of the disease having been communicated.

It is also a very common practice to apply leeches to the swelling; but I have never known any permanent advantage arise from it, and question whether it be not generally hurtful. I am aware, that the discharge of blood sometimes affords relief, but the benefit is transitory; and when the application of the leeches has been discontinued, it has appeared, after a short time, to have really tended to increase the rapidity of the subsequent progress of the disease. On this account, I will not recommend it, and know that some of our most eminent surgeons are likewise averse to it.

All cancerous diseases are aggravated by debilitating measures, and relieved by those which strengthen, and have the power of exciting a new and salutary action in the diseased parts. Therefore, in every case of cancer, every thing which weakens must be studiously avoided, and tonic and alterative medicines internally, be conjoined with external applications. A very good alterative pill can be made by taking of calomel, twenty grains; tartar emetic, five grains; rosin of guaiacum in powder, two scruples; rub them together, and divide into twenty pills, one to be taken every night; but if the patient should be in delicate health, one every other, or every third night, will do; at the same time, the following may be taken through the day: Take of sub-oxy-phosphate of iron, two drachms; ipecacuanha, in powder, twelve grains; aloes in powder, six or eight grains; mucilage of gum arabic, a sufficient quantity to form the whole into a mass; divide into thirty pills, one of which may be taken daily for the first three days, after this two, and in a few days three may be taken during the day, one in the morning, noon, and evening.

Sir Astley Cooper recommends the following draught to be taken twice or thrice a day for this disease:

“Take of compound infusion of gentian, an ounce and a half;

tincture of columbo, a drachm; carbonate of ammonia, five grains; carbonate of soda, half a drachm; mix and take at once."

The extract of hemlock is very serviceable in aged persons. Four or five grains of this extract may be made into a pill, with a little powder of hemlock, and taken three or four times a day. After a short time, the dose may be increased to two, or even three pills thrice daily.

The best treatment in ulcerated cancer, consists in administering those medicines which have the power of invigorating, and producing a healthy action in the constitution; and in applying to the ulcer, articles which are capable of stimulating the sound parts to throw off those that are diseased, and so altering the diseased condition or action in the vessels of the sounder parts, that they may heal. The internal remedies are, therefore, in most particulars, as above directed for unbroken cancer. The most powerful external applications are arsenic, arsenite of iron, carbonate phosphate, or oxy-phosphate of iron, hydriodate of potash, and poultices of figs, or bread and water.

Take of crow's foot, and dog's fennel, fresh gathered, of each an ounce; white arsenic, a drachm; flowers of sulphur, five scruples; bruise the crow's foot and dog's fennel together, then add the other ingredients, and beat the whole into a paste; then form this into balls, and dry them in the sun; when used they are to be powdered, and a sufficient quantity mixed with the yolk of an egg, this is to be spread on a piece of bladder, and applied to the ulcer. In this state the caustic is to remain till the part which it destroys separates spontaneously, when another plaster may be applied in the same way, till it separates its portion, and so on until the whole of the diseased surface is brought away, when a common healing salve is to be applied. The following will answer very well: Take of acetate of lead, in powder, two drachms; white wax, two ounces; olive oil, half a pint; melt the wax in seven fluid ounces of the oil; then add, gradually, the acetate of lead separately, rubbed down with the remaining oil, and stir with a wooden spatula, until they be thoroughly incorporated.

In cases of ulcerated cancer of the womb, an injection composed of carbonate, or oxy-phosphate of iron, mixed with starch, one drachm of either of the former articles, to four ounces of the

latter may be used twice a day, followed with a decoction of camomile flowers with a small quantity of alum dissolved in it, which will answer as an astringent wash.

In cases of ulcerated cancer in this organ, the arsenic may be given with advantage internally. The patient may commence with three drops of the arsenical solution, two or three times a day, in barley water, and gradually increase it to six or eight drops; but it is so active a remedy, that it will require GREAT CAUTION in its exhibition. In cases of disease in the female organs, where there is reason to believe it has been produced by infection, a strong decoction of sarsaparilla, with a small quantity of corrosive sublimate; to a pint of the decoction, dissolve the fourth of a grain of the sublimate of this mixture; one wine glassfull may be taken three times a day. It must be RECOLLECTED, this medicine is to be used with as much caution as the last mentioned, as it is very active.

The hydriodate of potassa has great effect in mitigating pain and improving the discharge of cancerous ulcers. Half a drachm may be mixed with an ounce of simple cerate, and a little of this solution laid over the whole ulcer, twice a day and it may also be introduced to the uterus with advantage.

Patients afflicted with this disease are often obliged to have recourse to opium in some form. The best preparation is the solution of acetate of morphia; it may be safely and beneficially administered to the extent of forty or fifty drops.

The diet, in all cases of cancer, should be mild and nourishing. A little animal food should be taken once a day, with eggs, and other light nutritious articles. Some professional men have recommended a low diet; but in my opinion, it is improper. Sir Astley Cooper protests against it. Change of air, when convenient, and daily exercise in proportion to the strength, is always advisable.

In regard to the removal of cancer by an operation, it is altogether useless, unless performed at a very early period, before the commencement of the lancinating pain. A very eminent surgeon, when speaking of the operation says—"After the commencement of pain, the use of the knife serves only to aggravate the patient's sufferings and accelerate her death." Those afflicted with this disease at a distance from cities, will do well to recol-

lect this, as it is no uncommon thing for physicians in the country to advise their patients to go to the city to have the operation performed by a skilful surgeon, to the great injury and distress of the sufferer.

I do not consider cancerous diseases by any means so incurable as they are supposed to be. There has been many cures performed by the foregoing treatment, and I think it would be proper for medical men to make greater exertions; notwithstanding I know the diseases to be among the most incurable of human maladies.

PREGNANCY.

Pregnancy cannot of itself be termed a disease, as the changes which it produces in the constitution may be considered natural, but as the change which naturally takes place may be the cause of disease, and as there are diseases which bare a close resemblance to it, I have thought proper to notice it in this place and more particularly as mistakes are frequently made, not only by physicians, but by the female herself, and medicines administered much to the injury of the patient. I will therefore in the first place notice the most certain symptoms of pregnancy; second, symptoms which may be produced by other causes resembling pregnancy; and in the third place, diseases which often accompany pregnancy requiring particular attention. I will add in this place, that the cause of mistakes on this subject often arise from the following circumstances; a female may be pregnant when she has no right to be so, and she will obstinately deny that it is the case; another is so who has no cause to be ashamed to confess it, but from some particular reason will deny that it is the case,—a third thinks she is so because she wishes to be in that condition.

Natural Symptoms of Pregnancy.

Some women feel, immediately after conception a peculiar sensation, which apprizes them of their situation, but such instances are not frequent; and generally, the first circumstances which leads a woman to suppose herself in that situation, are the suppression of the natural secretions, and an irritable or weak feeling of the stomach. The breasts often at first, become smaller, but about the third month they enlarge, and occasionally become painful; the nipple is surrounded with a brown circle or areola, and often even at an early period a fluid begins to secrete.—The woman's features become sharper and sometimes the whole body becomes emaciated, the pulse also changes, becoming more frequent.

In the commencement of pregnancy, the abdomen does not become enlarged, but on the contrary, is often flatter than formerly; when three months have elapsed however, some difference may be perceivable; this is at first very slight and the person rather feels distended than shows any visible enlargement; but it gradually increases, so that after the fourth month a prominence of the abdomen can be perceived. By the fifth month this prominence is so considerable, that when the woman is standing no one can readily overlook it, and from this time it gradually increases till it attains the well-known bulk of a person near her delivery. The last symptom I shall mention (and the most important one because it is the most conclusive) is the child's movements. These begin to be felt when four months have elapsed without any appearance of the natural secretions. At first this sensation is only slight, resembling very much a pulse or fluttering in the bowels, and lasts only a few seconds at a time; it may be felt once and then ceases for several days, but it generally continues to be felt every day from its commencement, and becomes stronger and more frequent till at length if a hand is placed on the abdomen when the child moves, it can be felt. Towards the end of pregnancy its movements are so strong, that whilst the person is setting the heaving of the abdomen may sometimes be seen through the dress.

Diseases resembling pregnancy.

It is a common opinion with some persons, that the symptoms of pregnancy are so certain, that no one who is in the least acquainted with them can possibly mistake them for any other complaint. This opinion is, however, erroneous, and not only have women of experience been mistaken, but physicians. In fact, so close is the resemblance of pregnancy to some affections to which the female is liable, that medical men, for want of a correct idea of the symptoms have subjected their patients to active courses of medicine for the removal of tumours when the proper remedy would have been labour; and in other instances I have known cases where physicians had been watching the woman for weeks expecting her to be confined; and in one case consulting in relation to the propriety of using the instrument for the removal of the child, when it was found that the patient was labouring under dropsy.

It is not my intention to attempt to convey an idea of the method of distinguishing those diseases to which females are liable from pregnancy, as it would be impossible for me to convey an idea sufficiently evident, by words alone, to enable the general reader to form a correct opinion; but as I believe it to be of the greatest importance that the public should be convinced of the similarity which exists between those two conditions of the body, and as I am aware of the injury which has been inflicted, not only by improper medical treatment, but by reports which have blasted the characters of some of the most virtuous and amiable females, merely from their having symptoms resembling pregnancy. I will relate a case or two which has occurred in my practice.

Case 1.—I was, about two years ago, introduced by an experienced physician of this city, to a married lady, who he had engaged to attend in her confinement, which was daily expected to take place; but on account of his having to leave the city, I was requested to call on the lady occasionally that she might become accustomed to me, as it was her wish to have my attendance. During those visits I one day remarked that she had not the symptoms which generally attend women in her supposed

condition. This led to some inquiries relating to her symptoms from the time when she first suspected that she was pregnant. I was also informed on inquiring how long it had been from the time when the natural secretions had ceased; that they never had taken place to her knowledge. I now expressed strong suspicions that she was not in the condition which she suspected; she insisted that it must be the case, as her physician had informed her that she had all the symptoms attending a case of the kind. I advised her to let me settle the question by a more particular examination, to which she consented. I soon satisfied myself that she was not pregnant, and informed her mother, who was present, of their mistake, but they could not believe me, and insisted on having the opinion of a very eminent surgeon. He met me, and notwithstanding he at first gave it as his opinion that I was mistaken, on further inquiries he came to the conclusion that I was correct in my opinion of the case, and that it was similar to one which he had seen about thirty years since, in the person of a poor woman with a large abdomen. She had been seen by a number of practitioners; some thought that she was pregnant, others that she had enlarged ovary; at length, on the latter supposition, an incision, eight inches long, was made into the abdomen; it was then discovered that there was no enlargement of the ovary, and that the appearance of pregnancy was owing to fat, and the symptoms, to the bowels being extended with air. The wound was closed and secured, and the patient recovered.

Case 2.—A young female came to my office late one evening not long since, and after much hesitation informed me that she was not married, but that a man whom her father had introduced to her with the intention of getting her to marry him, had sometime previous taken advantage of her, since which time she had not been unwell, and she was now so large that her friends laugh at her, and told her that it was time for her to marry Mr. —, but she was determined never to comply, let the consequence be what it might. As she had passed only three months since the natural secretions had ceased, and as her general health was naturally delicate, which might have produced the other symptoms of pregnancy which were present, I felt unwilling to give her my opinion; but advised her to come to my office in one month; and to prevent alarm, encouraged her to believe that her

anxiety was without foundation. Exactly in one month, the same lady was shown into my library. She was extremely agitated, and said she must have my opinion before she left the house, as her friends were urging her to marry, on account of her neighbours beginning to suspect that something was wrong. I informed her that I was prepared to give her an answer if she would permit me to make the requisite inquiries. She consented, after great emotion; in consequence of which I was soon able to give her a true account of her case. I informed her that she was not pregnant; on hearing of which she fainted. After she recovered sufficiently, I informed her that the cause of her troubles had undoubtedly proceeded from her lover having contracted a certain disease before he had been introduced to her by her father, and there was no danger but she could be restored to health. She begged of me to inform her father of the fact. I did so, and had the satisfaction of seeing him throw his intended son-in-law out of doors. The young lady recovered from her distress in a short time.

I could introduce numerous cases of accidents which have been placed on record by the most eminent authors, showing the importance of having a correct knowledge of the nature of the diseases to which the female organs are liable, producing the same symptoms which are caused by pregnancy, but trust what I have said will be sufficient to convince my readers of the uncertainty which attends cases of the kind.

The proper plan of proceeding in doubtful cases is, to wait, but if the symptoms, or if the circumstances should be such as to require an immediate investigation, the opinion of the most experienced physician should be obtained. Mild remedies, however, may at all times be employed with safety, such as I have recommended in cases of diseases accompanying pregnancy. I cannot, however, abandon the subject without warning individuals of the danger of employing active remedies, such as are used by ignorant or malicious persons for the purpose of producing the natural secretions; they are extremely dangerous, even if the female should not be pregnant; if so, they generally produce fatal results, and if they should not cause death at the time they are administered, they produce a train of diseases which renders the woman miserable during the remainder of her life.

Diseases attending Pregnancy.

The effects of pregnancy vary much both in degree and in the combination of the symptoms, according to the constitution of the woman and the natural or acquired irritability of different organs. In some cases, a very salutary change is produced on the whole system, so that the person enjoys better health during pregnancy than at other times. But in many instances some troublesome symptoms are excited, which are called the diseases of pregnancy. As these arise from the change which is naturally taking place in the organs of the body it will appear evident that when they exist in a moderate degree it will not be proper to interfere. But when any of the effects are carried to a troublesome extent, then we ought to interfere though we cannot expect to remove them altogether.

Vomiting.

Sickness at the stomach is one of the most frequent effects of pregnancy. Generally it takes place only in the morning, immediately after getting up. But in some instances it does not come on until the afternoon. It usually continues during the first four months, and then subsides; sometimes, however, during the whole term of pregnancy.

Some physicians consider vomiting as salutary; be this as it may, there is some cases so obstinate that the woman would be in great danger in permitting it to continue, as it might produce a miscarriage, or the patient might suffer from want of food.

Treatment.—It has been the practice of some physicians to recommend bleeding from the arm in case of this sickness being severe, a practice which I believe to be highly injurious in all cases, as it cannot be expected to do more than give temporary relief; the individual being already debilitated by the sickness. In fact, I believe there is more danger of a miscarriage being produced by taking blood, than there is from the sickness and vomiting, even should it be of the most troublesome kind.

At the commencement of my practice in this city I was fre-

quently consulted by ladies who had been so unfortunate as to have miscarried several times, notwithstanding they had been bled every week or two from the commencement of their pregnancy to the time of the misfortune. My advice was, that they should not be bled in the first five months of their pregnancy; and the result has been, that during the last five years of my practice I have not heard of one case of miscarriage in women who had been unfortunate when using the common remedies.

The plan of treatment which I have found effectual in cases of distressing sickness, has been, to administer mild laxative medicines, such as an occasional dose of magnesia, or the effervescent draught commonly called Seidlitz powders; this can easily be prepared by dissolving two drachms of *tartarized soda*, and two scruples of *carbonate of soda*, in half a pint of water, and thirty-five grains of *tartaric acid* in another half pint of water; when entirely dissolved pour them together, and drink it immediately while in the state of effervescence. The severity of the vomiting may also be greatly mitigated by taking a wine-glassful of lime-water two or three times a day, and particularly at the time when the sickness is very distressing; even a few sups of cold water may be taken with advantage. A light bitter infusion, such as the camomile, is also of importance to strengthen the stomach. Obstinate vomiting, especially if accompanied with pain or tenderness in the stomach, may be relieved by the application of leeches or mustard plasters applied over a region of the stomach and suffered to remain on the part until redness is produced in the skin.

If the vomiting should be bilious, and accompanied with pain in the right side and shoulder, cough, and other symptoms of disease of the liver, a blister should be produced by applying a mustard plaster to the right side, and a very gentle course of mercury given; great caution is, however, necessary in using this medicine, for if it is given freely it produces debility, which would be likely to result in abortion; the fourth of a grain once a day for five or six days, or until the evacuations from the bowels become of a dark appearance, will generally be all that is necessary. If, however, the bowels should be disordered, it will be proper to give the calomel in combination with the fourth of a grain of opium.

When vomiting takes place near the conclusion of pregnancy, it is sometimes proper, if the individual is very strong and lusty, to take five or six ounces of blood from the arm; but this, it must be recollected, is very seldom necessary, and, in fact, I believe there would be much less injury done if bleeding was forbidden altogether in pregnancy, than there is good resulting from its use. Cloths, dipped in laudanum, should be applied to the pit of the stomach, and a grain of opium may be given internally; but if this does not give relief it is not proper to repeat it often. Gentle laxatives, such as has already been mentioned, must be persisted in and depended upon.

Heartburn.

This often takes place very soon after pregnancy, but sometimes not till after the fourth month. Heartburn is a complaint so very common, and so generally mitigated by mild remedies, such as magnesia or chalk, that a physician is seldom consulted respecting it. But sometimes it becomes very severe and intractable, requiring the most powerful absorbent medicines. I have found a tea-spoonful of carbonate of soda taken two or three times a day, or calcined magnesia in half tea-spoonful doses combined with two or three grains of ammonia, taken occasionally when the pain is severe, to answer the purpose better than any other.

Costiveness.

Constipation of the bowels is a very general complaint of women in the pregnant state, owing in some degree to pressure on the lower portion of the bowels; and in other instances to a relaxed condition of the intestines. When it is produced by either of these causes it ought to be removed, as there is great danger of either a miscarriage or premature labour being produced.

Magnesia is an excellent medicine in this species of constipation, as it has a tendency not only to remove it but also to destroy the acidity of the stomach; but if it fails a very good pill can be made by combining forty grains of aloes with thirty of extract

of hyosciamus, to be divided into thirty pills; one of these can be taken as often as is necessary. Castor oil and rhubarb are also very suitable medicines in this species of the complaint.

It sometimes happens, that indurated or hard fœces are accumulated in the lower portion of the bowels, producing considerable irritation, and sometimes an increased secretion of mucus is passed from the bowels, causing symptoms of dysentery, yet the irritating matter will remain immovable. When this state of things is found to exist, clysters are of great importance, as they have a tendency to soften the fœces and assist in producing a healthy action in that part of the intestines which is distended. These at first ought to be very mild; a solution of salts mixed with a sufficient quantity of starch to give it some consistency, will answer very well. After the bowels are emptied, a grain or two of the extract of hyosciamus should be given three or four times during the day and night to allay the irritation; or if this be not sufficient, and the pain and secretion of mucus still continue, an anodyne clyster must be administered, and followed next day by a mild laxative, such as castor oil.

If this costive state be neglected until the time of delivery, the labour is often protracted, and after it takes place, the patient recovers slowly.

Diarrhœa.

The bowels, instead of being bound, may be very open; or, costiveness and diarrhœa may alternate with each other. The appetite is generally impaired, the tongue becomes foul, and the patient is apt to be troubled with a bitter or disagreeable taste, and occasionally vomits bilious matter; the breath is offensive, and often the head aches. The evacuations are very offensive, and generally dark coloured. When this state of things exist, it will be proper to commence the treatment by administering small doses of rhubarb, for the purpose of removing any irritating matter that may be lodged in the bowels; after this, some light bitter infusion must be given. Attention ought to be paid to the diet; it ought to be light, and taken in small quantities. When the tongue becomes clean, and the evacuations from the bowels

more natural, anodine clysters may be administered. In all cases of continued diarrhœa, it will be proper to keep the surface of the body warm with flannel; and sometimes a flannel roller bound gently round the abdomen gives great relief.

Retention or two frequent inclination to pass urine.

The urinary organs are often affected by pregnancy. In some instances, like the intestines, they become more torpid than formerly; so that the urine is retained longer and expelled with some difficulty. This state requires great attention, for retroversion of the uterus may, at a certain stage of pregnancy, be readily occasioned.

There is not much to be done with medicine in this case; for, although soda, sweet spirits of nitre, and similar remedies sometimes give relief, yet more reliance must be placed on the regular efforts of the patient. Should these be delayed too long, then the catheter must be employed.

More frequently, however, the urinary organs is rendered unusually irritable, requiring a very different treatment from the former, and it would be altogether improper to administer any thing of a stimulating nature. If the patient is healthy and strong a small quantity of blood taken from the arm, will be attended with advantage; frequent doses of castor oil will also be proper. If the patient be of a delicate habit, she had better be as much as possible in the recumbent position, and take a grain or two of the extract of hyosciamus every night, the bowels to be kept regular by taking magnesia, and the patient encouraged to drink mucilaginous fluids, such as linseed tea, gum-water, &c.

Jaundice.

This is not an uncommon disease accompanying pregnancy; it generally appears at an early period, and is preceded by dyspeptic symptoms, which generally increase after the yellowness comes on. In some instances the tinge is very slight and soon disappears. In others, the yellow colour is deep and long continued, and the derangement of the stomach and bowels considerable.

The treatment used in other cases of this disease, such as emetics, and drastic purges, are not allowable in this case; and in every instance, when young married women are seized with jaundice, they should be very cautious in regard to what they take, as some physicians are governed by the books, and prescribe the remedies that are recommended by others, without having regard to circumstances. Mild laxatives, such as rhubarb or magnesia, with some light bitter infusion, are the most proper remedies, and will generally soon remove the disease. The following is a very good prescription; take of rhubarb, forty grains, calomel, five grains, and ipecacuanha, ten grains, divided into ten parts or pills, one of which may be taken every night, with a certainty of relief.

In some cases, the skin is partially coloured; the mouth, for instance, being surrounded with a yellow or brown circle, or irregular patches of those colours appearing on different parts of the body. This is an affection quite independent of the state of the bile, and seems rather to be connected with certain conditions of the stomach and bowels. It always goes off after confinement, and does not require any peculiar treatment.

Palpitation of the Heart.

The organs of the chest not unfrequently suffer during pregnancy. Palpitation of the heart is a very common affection, and often extremely distressing. It is a complaint which is very apt to alarm the patient very much, and not unfrequently leads the inexperienced practitioner to believe that there is disease of the heart, and, as a matter of course, advises frequent bleedings, much to the injury of his patient. It is a disease generally void of danger, but in delicate women and in those who are disposed to miscarriages, it sometimes occasions the event. All that is generally necessary or proper to be done is, to remain quiet and take fifteen drops of the spirit of hartshorn or ether every two or three hours. If the bowels are costive, a gentle purgative will be proper, or if the patient should be debilitated from diarrhœa, the following mixture may be given: take of chalk two drachms, tincture of opium one drachm, white sugar half an ounce, water four

ounces, mix and after shaking it well, take one table spoonful every two hours. The attacks are to be prevented by taking some gentle strengthening medicines such as teas made of gentian, boneset, camomile, &c.

Syncope, or Fainting.

This is another distressing affection of the heart often attending the pregnant state. It may take place at any period but is most frequent in the three first months, and often succeeds some exertion or quick motion of the body or exposure to a confined atmosphere. It may also come on when the person is at perfect rest. The paroxysm is often complete, and of long duration; at other times the person does not lose her knowledge of what is going on and soon recovers. A very common practice with some physicians is to bleed in this affection, and in fact so common is it in this city, that a young physician's character would be in danger from the vulgar prejudices of old women if he was to object to bleeding when called upon, notwithstanding there is no treatment that could be applied with a greater certainty of doing injury to the patient. The nature of the affection and common sense should, I think, be sufficient to convince the most ignorant of the truth of this. It must be well known to many, that bleeding from the arm to any extent will produce fainting fits in a healthy individual, and if a person was bled until he fainted, would it be proper to bleed again for the purpose of bringing him to his natural feelings? It is well known that the cause of fainting is owing to a want of a sufficient quantity of blood in the brain; this can be established from the fact, that if a person is bled when in a sitting position, to fainting, as soon as he is laid in such a position as to cause the blood to enter the brain with facility, he will recover.

All that I have ever found necessary or proper in a case of fainting, is to have the patient placed in the recumbent posture, in a situation where there is a free circulation of pure air. If this should not remove the fainting in two or three minutes, I would advise the patient to be laid in such a position as to have her head and shoulders four or six inches lower than the other parts of the

body and at the same time the volatile salt may be used ; if this should not be at hand, bathing the temples with the spirit of harts-horn or any spirituous lotion will answer. Should the fit continue long it would be proper to preserve the heat of the body by applying warm blankets. Those who are subject to fainting fits, must avoid fatigue, crowded or warm rooms, fasting, quick motion and exertion of the mind. Attention should be paid to the digestive organs, and if there is much debility some gentle strengthening medicine should be given, such as the infusion of columbo or gentian.

Difficulty of breathing.

Sudden attacks of difficulty of breathing in those who were previously healthy, are generally to be considered as hysterical and are readily removed by the common remedies used for the latter disease, such as the tincture of assafœtida, musk, &c. There is, however, a more obstinate and protracted species of difficult breathing, not unfrequently accompanied with cough, which requires more particular attention when accompanying pregnancy ; it generally occurs in paroxysms, which are very severe. Sometimes a viscid fluid is expectorated, but more frequently the cough is dry. During the attack there is generally great pain in the head, and the patient complains of great shaking of her body. This disease is extremely apt to produce a miscarriage, or if it takes place during the last two months immature labour ; and it is worthy of remark, that when either occurrence takes place, the cough suddenly ceases. I have found this species of cough and difficulty of breathing to be most frequently connected with disease of the spine, and the most speedy relief obtained by having five or six ounces of blood taken from the region of the spine between the shoulders, if the woman is otherwise healthy. It will be proper to keep up constant irritation along the upper portion of the spine, by rubbing a small quantity of the tartar emetic ointment on the part ; if delicate, a large Burgundy pitch-plaster applied between the shoulders, will give relief for the time. The bowels are to be kept open, and if the cough is very teasing, a grain of opium or hyosciamus must be

occasionally given. Should immature labour or miscarriage take place, and the cough continue, the treatment recommended for disease of the spinal marrow when located in the *cervical* region, will be proper. See page 133.

Headache.

When headache is severe, constant, and accompanied with symptoms of plethora, or the eye be dull, and the head giddy, especially when the person stoops, great danger is to be apprehended. And this is increased if the woman complain of ringing in the ears, flashing of light in the eyes, or indistinct vision. There is no disease accompanying the pregnant state which demands bleeding from the arm more than this; but even here I would dispense with it, if possible, for fear of producing debility, and more especially as it can only be expected to give temporary relief, and if depended upon alone may be required very often during the pregnant state; when it is possible I would recommend taking four or five ounces of blood with cups from the temples, or from the back of the neck; two or three ounces taken in this way, will give more relief than taking twelve or sixteen from the arm; and taking blood with cups never does produce that general debility which is so dangerous in the pregnant state, when produced by frequent bleedings from the arm. But if the patient is so situated as not to have a person convenient who can apply cups immediately, I would advise blood to be taken from the arm as speedily as possible, as there is great danger of an attack of apoplexy or epilepsy. The quantity of blood which is to be detracted, must be determined by the severity of the symptoms, the habit of the patient, and the effect produced; generally, a moderate evacuation, say six or eight ounces, taken from the arm will give relief at the time, and its return prevented by the daily use of gentle purgatives, low diet, &c.

It must be recollected, however, that all headaches do not forebode these dangerous results, for very often they proceed from the stomach, and evidently depend upon indigestion or nervous irritation, they are often periodical, accompanied with a pale countenance, and the pain feels more external than the former.

They are readily removed by the use of laxatives, sleep, bathing the temples with vinegar and water, ether, or spirit of ammonia; a grain of calomel with three or four of rhubarb, once or twice a week, is also very proper.

Swelling of the lower extremities.

In the course of pregnancy, the feet and legs very frequently swell. This is often caused by pressure upon the large blood-vessels in the neighbourhood of the uterus; but it also seems to be somewhat connected with the pregnant state, independent of pressure; for in some cases, the swelling is not confined to the lower extremities, but affects the whole body. In ordinary cases, or in cases unattended with pain or much tension, no medicine is necessary, as it is by no means dangerous; on the contrary, it has been supposed by good authority, to be beneficial on account of many uneasy feelings being removed by it; but when the swelling is extensive, and does not go off on lying down, it may be attended with unpleasant, or dangerous effects. All that is generally necessary to be done, however, is to give gentle purgatives; this is proper in all cases, unless the strength is much reduced; if so, it will be most proper to depend upon the administration of milder means, the sweet spirit of nitre, or the acetate of potassa in ten grain doses, two or three times during twenty-four hours. Taking blood from the arm has been recommended by some authors, but I consider it useless and dangerous, except in women of a very full habit.

Cramp of the lower extremities.

Spasms in the lower extremities are often caused by pregnancy. They often come on suddenly, but sometimes are preceded by a sense of coldness, and accompanied with a feeling of heat. They are removed by a change of position and gentle friction.

Despondency.

It is a common occurrence to find women desponding during pregnancy, and alarmed respecting the issue of their confine-

ment. This apprehensive state may be the consequence of accidents befalling others in their confinements; but most generally, it proceeds from a peculiar state of the nerves, depending on pregnancy. Little can be done by medicine, excepting to avoid all cause of disease or uneasiness of the body; the mind is to be cheered and supported by sensible persons who have most influence with the patient. I expect to be able to convince my readers before closing this subject, that there is but little cause for despondency from any danger that attends a case of confinement, where there is no improper interference on the part of the attendant.

Pains resembling those accompanying labour, commonly called false pains.

Women are subject to pains, in the last months of pregnancy, about the back or bowels, resembling those of labour. They may be caused by many circumstances; most generally, however, by flatulence, a spasmodic state of the bowels resembling slight colic or irritation, connected with costiveness or diarrhœa. I would call the attention of my female readers particularly to this subject, as I consider it of the greatest importance that they should be in some degree able to distinguish between false and natural pains, as it would be extremely dangerous if the means should be used in the former case which would be proper in the latter.

When a young lady expects to be confined the first time, she feels anxious to have some knowledge of what she will have to suffer, and will consult every old woman she gets in conversation with, and will be told that she will have pains and suffering to endure never before heard of. Many of the old women will also be very officious; they will calculate from certain periods, and inform the unsuspecting lady, that on a particular day she may expect to be confined. The day arrives, and the lady, if she should have some disagreeable feeling which may have been produced by excitement of mind, will be likely to conceit she has pains, and will relate her strange feelings to her female friends; they will undoubtedly declare that she is about to be confined, and must send for the family physician; he arrives, and is told

by the old ladies, (who will, by this time, have gathered in from all quarters,) that the patient's time has expired, and she has been very bad several hours, and must have assistance. The physician, if he should not be thoroughly acquainted with his profession, or is void of human feelings, (which I fear is often the case,) will believe all he has been told, and will commence some interference, which will produce so much excitement in his patient as to render her incapable of giving an account of her feelings, and perhaps the improper interference he has made use of, if it does not produce immature labour, may cause the patient to suffer much longer than if he had not been present, and perhaps lay the foundation for delicate health ever after. For the purpose of calling the attention of the reader more particularly to the importance of this subject. I will relate a case or two which occurred a short time since.

Case 1.—I was requested by Mr. — to attend his wife in her third confinement, but I objected to it on account of his residence being several miles from the city; he insisted upon my complying with his wishes, and informed me that his reasons for so doing, was on account of his wife having tedious labour in her two former confinements, and that her health had become impaired to such a degree that he was fearful she would not be able to stand the sufferings, if protracted to such a degree as formerly. In consequence of his entreaties I promised, if possible, to attend her; and in a week or two after I received a note, informing me that Mrs. — had been taken ill and wished my attendance immediately. The note arrived at my office in the morning shortly after I had started to visit my patients, and as I did not receive it for six or eight hours after it was left at my office, I came to the conclusion that I would be too late, and declined going. However, in a short time another note arrived in great haste, informing me that the old ladies who were in waiting were much alarmed at my delay, as the patient might have had it all over several hours before, if I had been there. I accordingly went with all speed possible; when I arrived, I found the old women in the greatest consternation. Some holding the patient, some crying, and some preparing the baby's clothes. After the excitement and alarm had abated in some degree, I inquired of the

patient how she had been during her former confinements, and was told that she had went one month over her calculation each time, and had been ten days in labour, notwithstanding her physician had used all the remedies to hasten it that he was acquainted with. After some further inquiries, I came to the conclusion that it was not labour pains, and that the time had not arrived within a month or two when she should have them. And for the purpose of giving relief, I ordered her to take one table-spoonful of castor oil, thirty drops of laudanum, and fifteen drops of the essence of peppermint, which soon removed the pains. I then informed the patient that she would not be confined in short of a month or six weeks, which proved to be the case; and in place of suffering eight or ten days, as in her former cases, it was all over in less than an hour after she was taken ill.

I had every reason to believe from this lady's history of her former confinements, that improper means had been employed, and that immature labour had been produced, which was the cause of her protracted sufferings.

Case 2.—I was requested to visit a female on the first of June, 1838. On my arrival I found her suffering extreme pain, which was supposed by her and the old ladies present to be labour. After satisfying myself that it was not, I requested the nurse to give her a few drops of laudanum and mint water, for the purpose of removing the flatulency from her stomach, as I had reason to believe that to be the cause of the pains. The nurse objected to my prescription, on account, as she said, of its having a tendency to remove the pains. I told her that there was no medicine that could be given that would stop the natural pains, and it was always proper to try to remove pains which proceeded from a disordered condition of the stomach. She persisted in refusing to administer the medicine, and, as a matter of course, I left the house. Another physician was called in; he informed the patient that her pains was produced by labour, and that she must take medicine for the purpose of increasing them, as she could not live two hours if she was not delivered. The usual medicine for increasing the pains, was accordingly given but without having the desired effect. After about twelve hours suffering, the patient came to the conclusion that there must be something wrong, and

as the physician had been mistaken in saying that she could not live more than two hours, she was determined to have a consultation; the physician consented to have a medical friend of his called in; he agreed with the physician in attendance, that something must be done, and sent for his instruments; after using them three or four hours, the lady became so frantic from the pain produced by the instruments, that she would not suffer them to be used any longer. The doctors consented to desist a few hours, until the patient would get some rest. During this time the labour pains, as they called them, ceased, and the patient appeared quite well, with the exception of the injury which had been inflicted by the use of the instruments. The doctors met the next morning to recommence their operation, but found their patient so much swollen from the injury they had inflicted, that they were obliged to desist from any further attempt. In about a month after this, I was again requested to visit her, and found her labouring under quite a different species of pains, and in a few minutes after my arrival, she was delivered of a fine boy.

I have merely mentioned these cases for the purpose of showing the danger which might result from mistaking false for natural pains; and, in fact, these two species of pains bare so close a resemblance as to render it difficult to describe them in such a way as to enable an inexperienced observer to make a distinction. But, fortunately for the afflicted, there is no danger in employing the remedies used for the removal of false pains, should it be labour, and it is always proper where there is the least doubt existing, to administer mild remedies, such as castor oil, laudanum, &c.

Natural pains.

The natural labour pains generally commence in the back and extend towards the lower part of the abdomen, or top of the thighs: but there is, in this respect, great diversity existing with different women, or the same woman at different times. Sometimes the pain is felt principally in the abdomen, the back being not in the least affected during the stage; and I have observed that those pains are not generally so effectual as those which

affect the back. In others, the pain is confined to the small of the back, and is either of a dull aching kind, or sharp and acute, and in some instances, is attended with sickness, or tendency to fainting. The common manner of attack is, for the pains to be at first confined to the back, descending lower by degrees, and extending round the body or top and fore part of the thighs, and gradually stretching down the back of the thighs. Frequently, at this time, one of the legs is affected with cramp. The duration of each pain is variable; at first, it is very short, not lasting above a minute, perhaps not so long, but gradually becoming more lengthy and severe. During the intermission of the pains, the patient is often very drowsy, at others, she is extremely irritable and watchful; it is also a very common occurrence for the woman to complain of coldness, and not unfrequently she will be taken with a shaking or trembling of the body, without any sensation of coldness whatever. This is one of the most certain symptoms of labour; it varies in different persons, from a gentle tremor to a shaking of the frame so violent as to shake the bed on which the patient rests, and even to bear some resemblance to fits.

Manner of conducting labour.

A great deal has been written by authors on the management of labour. They have described every manœuvre which the physician is to perform, and the situation in which the patient is to be placed, as though circumstances never altered cases. In short, I do not believe there is a subject in the medical science more maliciously represented than this one, and I know of no subject which is likely to lead to more distressing results. The young and inexperienced physician being led to believe that he is about to perform one of the greatest undertakings imaginable, causes his patient to be placed in a certain position, without having the least regard to convenience or comfort, when, in fact, he is about to do nothing but what nature would do much more safely if he was not present. The Indian women or females, in a state of nature, we are told, make little or no preparations for their confinements. They retire to the woods, or seclude themselves in a

hut or bower, until they are confined ; after which they return to their usual mode of living ; and we are also told that it is a thing almost unheard of for a person to die, or even for an accident to take place from confinement.

But for the purpose of convincing my readers of the absurdity which attends the great precision which is practiced and taught by some of our medical authors, in regard to the position in which the patient should be placed, I will quote a passage from the writings of a late European author. He says, "different countries have different customs in this respect. In some, women are delivered upon a chair of a particular construction; in others, seated on the lap of a female friend. Some women use a little bed on which they rest, until the process be completed." My plan has been, and if I had not abandoned this branch of the science, should be, to permit the patient to lay in the position most congenial to her feelings and to change it as often as agreeable.

There is also a great deal too much said about the way in which the bed should be made, and the kind of dress to be worn by the patient. My plan has been to let them have their beds and dresses to suit their fancy. It has been my lot to attend some poor women who had no bed to fix nor change of raiment to put on, they have got over their confinements as well, and in some cases much better than those who had their beds and dresses prepared by the orders of a physician. It is of some importance, that the patient's apartment be not overheated by fire, or the woman kept too warm with clothes, as being too warm would create a restless and feverish feeling. No person should be admitted in the chamber who is not absolutely necessary: this is all that is generally required, excepting a female friend; a greater number would, by their conversation be likely to disturb the patient, whose mind, in this state of distress, is easily alarmed. All whispering and appearance of concealment should be strictly prohibited in the room.

If the patient feels disposed to sleep during the intervals of pain she ought not to be disturbed. Women have seldom any disposition to take food whilst in labour, and if the process be not protracted, there is no occasion for it; but if she should have a de-

sire to eat, she may be allowed a little tea with toast, or a little soup, gruel or panada. Every thing, however, of a heavy and indigestible nature, must be forbidden.

Stimulants, such as cordials, wine, spiced food or drink, must also be forbidden, unless the patient should have tedious labour, or should have had previous delicate health, when it will be proper to allow something of the kind, for the purpose of supporting her strength. I have found a small quantity of the best brandy to answer much better than any thing of the kind; its stimulating effects are much sooner felt than that produced by cordials or wine, and the excitement which it produces in the system is sooner exhausted, rendering it much more safe in case of flooding after delivery.

It is a very common practice for physicians to attempt to facilitate labour by attempting to change the position of the child's head, rupturing the membranes so as to admit the water to escape, &c. This practice is wrong in almost every case; the membranes ought to be allowed to burst by the efforts of the uterus alone, as a premature evacuation of the water either disorders the process and prolongs the labour, or, if it should happen to be done at the proper period which would accelerate the labour, it always renders it more painful. But this is not the only objection I have to this course of proceedings. It is a very common circumstance for an inexperienced, or it may be an experienced but ignorant practitioner, to attempt a rupture of the membranes, and in doing so, rupture the bladder, which would render the woman miserable during the remainder of her life. I am acquainted with twenty-five or thirty females, who have met with this sad misfortune, and many of them have been attended by those who are termed our most successful, or old experienced physicians. As regards the attempt to change the position of the child's head, after it has descended sufficiently low to admit of the attendant to reach it with his hand, is altogether improper; and there is not a physician in existence who will attempt it, however well acquainted with the anatomy of the parts, but what will be likely to do more injury than good. I could produce the opinion of a number of the most enlightened practitioners in Europe, to prove that what I have said relating to this interference is correct, but consider it unnecessary.

All that is proper to be done in a case of natural labour from its commencement to its termination will suggest itself to any person of common understanding, and I have long laboured under the conviction, that the office of attending women in their confinement should be entrusted to prudent females. There is not, according to my experience and the reports of many of the most eminent surgeons, more than one case, in three thousand, that requires the least assistance; I am aware, however, that there is a few crafty physicians in this city who attempt and often succeed in causing the distressed and alarmed female to believe that it would be altogether impossible for her to get over her troubles without their assistance; and for the purpose of making it appear that their services are absolutely necessary, they will be continually interfering, sometimes with their instruments, when there is not the least occasion for it.

It is not my wish to wound the feelings of any person, and I trust no one will suppose that I have made these remarks with that intention; on the contrary it is distressing to me in the highest degree in having to expose the craft of a cotemporary, and I must add that it is my confirmed opinion that there would be much less danger in case of confinements if they were entrusted altogether to females, than there is at the present time. I know that some women advance the argument that it is better to call in a physician at first, for if there should happen to be any thing wrong they would have to call one in at last. No one will argue in this way who is acquainted with the customs of physicians in this city. There is not one of those men who employ their time altogether in attending women in their confinements, that ever dare attempt to use the instruments in a case where they were absolutely necessary; if they would, their ignorance of what they profess to be acquainted with would soon expose them. In short, there is no man who has that knowledge of the human body that is necessary to enable him to operate in a case of this kind with success, who would condescend so much as to waste his time and talents in pursuing a business which requires no skill or judgment. Another reason which I would offer in proof of it being less safe to employ a man who devotes his whole time to this branch of the profession is, they do not in any case give na-

ture an opportunity to perform its work. They cannot sit ten or twelve hours as is very often necessary. This would be wasting too much time, and they would be likely to lose a case or two in doing so, and the first thing they think of when they are called to a woman, is to have her delivered as soon as possible. They may, for the sake of form, ask a few questions concerning the nature of the pains, but no matter what the symptoms indicate, the means are employed to accomplish labour, and there is no doubt in my mind but one half of the women attended by these men are delivered before the proper period, and that this is the reason why we see so many deformed children, and meet with so many females who have incurable complaints. If the business was trusted to aged midwives they would give more time, and nature would have an opportunity to do its work. And if there should happen to be a difficult case, a skilful surgeon would be called in with as much safety as if a doctor was attending, and generally with more, for those men who follow the business for a livelihood, generally continue their interference, and try to accomplish the labour, until it is too late for proper means to be available.

Duties to be performed after delivery.

The first thing that is to be done after delivery is to apply a ligature around the cord which connects the child to the *placenta*. For this purpose a piece of tape or string made by doubling several threads of any kind is to be applied about three inches from the child; after this the cord is to be separated close to the ligature and between it and the mother; the ligature ought to be sufficiently tight to prevent the blood passing through the cord from the child. This may be done immediately after the child is born if it cries, but if it does not cry and there is no signs of life it is not proper to apply the ligature for at least a quarter of an hour, unless the child begins to breathe; at the same time a bandage is to be applied round the mother as tight as it can be conveniently borne, and wide enough to reach from the stomach to the lower part of the body. I consider this of the greatest importance and it ought never to be neglected, as it often prevents unpleasant occurrences. This being done, the mother is to be made comforta-

ble by applying proper clothing, but she ought not to be moved for at least three hours. If she feels languid and has a desire to take food, a very small quantity of gruel or panada may be given, stimulants of all kinds and cold drinks must be strictly forbidden. If, however, the patient should be much exhausted, and feel cold or languid, a cup of weak black tea may be allowed.

The mother, generally after the delivery of the child, feels quite well, and expresses the greatest satisfaction in being relieved; mostly, however, within half an hour, one or two slight pains are felt, and the after-birth is expelled, which completes the last stage of labour, and when the process goes on regular, nothing is required in this stage excepting watchfulness, lest flooding supervenes; if this should take place all that is necessary to be done is to remove the pillow and bolster from under the head so as to have it and the shoulders a little lower than the parts of the body, it may also be proper to press gently over the region of the uterus with the hand for the purpose of causing a contraction to take place, which will remove all danger.

The mother is cautiously to abstain from the use of animal food such as meats, soups, &c. during the first three days after her confinement, unless she is very weak and delicate; if so, beef or chicken water may be given; after this, a small portion of chicken may be given for dinner, and a little wine may, if the patient is weak, be added to the panada or sago which is taken for supper; as recovery goes on the usual diet is to be returned to. In regulating both the diet and the quantity of wine, (if it appears necessary) regard must be had to the previous habits of the woman.

The time at which the patient should be allowed to rise a little to have the bed made, must be regulated by her strength. It ought never to be earlier than the third day, and, in a day or two after she may be allowed to be dressed, and set up for a short time; but under the most favourable circumstances the woman ought not to leave her room within a week. Great caution should be used during the first month, not to use active exercise as there is great danger of a prolapsus of the uterus being produced.

After-pains.

Shortly after delivery, women are attacked with what is termed after-pains. They commence within an hour after delivery, and continue two or three days; they are generally more severe after the first labour, and often require remedies; it is not proper, however, to administer medicine for their removal during the first six hours after the woman has been delivered, as they proceed from the contraction of the uterus, and have a tendency to remove all danger of flooding. After this, especially if the pains are so troublesome as to prevent the patient from sleeping, it will be proper to interfere.

Opium, in some of its forms, is the remedy which has generally been recommended and used by medical men for the removal of after-pains. But I consider its use extremely improper, not only because it sometimes disagrees with the patient, and produces temporary derangement, but because it has a tendency to produce inflammation and fever, which are the most dangerous effects that could possibly take place; and it also has a tendency to cause constipation of the bowels, a circumstance which ought by all means to be prevented. The most effectual remedy that can be employed, and one, too, that can be used under all circumstances, is camphor. The way in which I have recommended it to be given, has been, to take of pulverized gum camphor three drachms; pulverized gum arabic two drachms; white sugar two ounces; rub them well together and add six ounces of water, one table-spoonful to be given (after shaking it well) every hour until the pains are removed. This mixture has not only the tendency to stop the pains, but it has the peculiar effect of attracting the blood from the affected parts, a circumstance which is not, I believe, generally known by physicians.

There is another species of pains which may take place after delivery, of a much more dangerous character, and require more vigorous remedies; they may be produced by inflammation of the bowels, or of some of the parts near the groin, and may be the forerunner of a swelled leg or hip, ending in a kind of rheumatic lameness, and if not removed, may end in abscess, or produce

hectic fever. The way of designating this species of pain, is, in the former or simple after-pains, the attacks continue but a short time, generally not longer than a minute, and there is not any pain produced by pressing the affected parts: on the contrary, in the latter species, the pain continues without intermission, and is increased by pressure. If these two species of pains exist at the same time, it will be proper to use the camphor mixture as directed above, at the same time the remedies are being employed in the last mentioned species, which is, when there is symptoms of inflammation in the bowels, to apply fomenting applications, such as bran wrung out of hot water, hops, &c. If the pain is located in the hip or leg, leeches, cupping, or blistering the part, with applications of mustard, will be proper. Flies must not be used for the purpose of blistering in this condition of the body. Attention must also be paid to the condition of the bowels. If there is much fever, epsom salts will be the best purgative; but if the woman is of a delicate habit, castor oil is preferable. It will also be proper for the patient to abstain longer from the use of animal food than if this state of things had not taken place.

Puerperal, or Child-bed Fever.

The most fatal disease to which lying-in women are subject, is known by the terms puerperal or child fever. It generally begins a few days after delivery, with pain of the head, shivering, tenderness on pressure over the abdomen, accompanied with a quick full pulse. As the disease advances, the milk becomes suppressed, the abdomen swollen, and the breathing short. No subject belonging to the medical science, has occupied the attention of medical men more than this one, and no one remains more unsettled: some attributing it to one some to another cause. So unsettled, indeed, are their opinions, that it is impossible to form a correct judgment of the treatment which has been found most beneficial. Fortunately, however, for women, the disease has never prevailed to any extent in the United States. Occasionally I have met with a case in this city.

Treatment.—My object in relating the symptoms of this dangerous malady, was not with the intention to describe the treat-

ment with the view of having it applied by any other than a physician ; but merely for the purpose of convincing lying-in patients of the danger which attends their confinements, and the necessity for abstaining from every thing which has a tendency to produce fever.

The greatest diversity of opinion has also existed among the most eminent European physicians, in relation to the treatment of this fever, some being in favour of having large quantities of blood taken in all cases ; others being altogether opposed to bleeding in any case. The success which appears to have attended these different modes of practice are much the same, generally two-thirds of their patients died.

Judging from experience in practice, and from the statements I have been able to collect from foreign publications, I must give it as my candid opinion, that bleeding ought not to be employed in this disease ; the tendency which the disease has to take on a collapsed form in a few hours, and the weak condition in which a woman must be at the time of the attack, I think ought to be sufficient to convince any individual that bleeding could not be attended with beneficial results, even if the disease was ascertained to be of an inflammatory nature, which is doubted ; and there is remedies which have a more powerful tendency in subduing fever than what bleeding has, and that, too, without danger of enhancing that fatal prostration which is to be guarded against.

The opinion which I have formed of the nature of this fever is, that it is not of an inflammatory but of a congestive character ; and I am more fully convinced of this from the fact, that it yields more readily to remedies which have a tendency to remove congestion, than to those used in inflammation.

The treatment which I have found most effectual, has been, to administer a mild emetic at the commencement of the disease ; this is proper in all cases of fever, and very often removes the cause at once. After the operation of the emetic, I have administered small quantities of tartar-emetic, so as to keep up a slight degree of nausea, which has generally subdued the fever in six or eight hours, at the same time I have had cloths wrung out of hot water and applied to the abdomen repeatedly, until the pain or tenderness was removed ; after this I have had a large plaster of

mustard applied over the whole region of the bowels, and suffered to remain on the part until redness of the skin was produced. These applications have had the happiest effect in removing the internal congestions, or cause of fever whatever it may be. When the patient complained of great debility, I have ordered fifteen or twenty drops of the spirit of hartshorn every hour, the camphor mixture (mentioned as proper in after-pains,) is very good; these medicines can be given in fevers without any danger of exciting the pulse, notwithstanding they are the most powerful stimulants, and are well calculated to remove internal congestion.

For the purpose of convincing my readers of the good effects of nauseating remedies, such as tartar-emetic or antimony, I have inserted the following extract, taken from Dr. Böer, of Vienna: he says, "I once lost, in one day, two lying-in women from puerperal fever; one I attended alone, the other in consultation with the ordinary house physician. At the same time, I had also in the practical school, (of midwifery) two lying-in women ill with the same disease. The next day one of them died, and in the other death was approaching. It was the seventh or eighth day of her disease; the belly was very prominent, tense, and so painful that she could hardly bear the bed clothes: every thing passed away from her unconsciously; she had an excessively quick pulse, starting of the tendons, and wandering in her talk; her breathing was difficult and broken, and her countenance fallen; the milk in her breasts had gradually disappeared, and almost from the beginning of the disease no lochia were to be seen." He gave this patient a dose of a preparation of antimony, the result of which was, he adds, "she had in the night a profuse sweat, and passed much urine, after which she said she felt as if she had imbibed a new life." The doctor further remarks, after having used antimony in a number of cases with success, "I was convinced of the efficacy of this medicine in cases where the disease had reached its highest degree, I proceeded to order it at the beginning of the disease. From that time, in our practice, the puerperal fever was never fatal: it never even reached a dangerous stage, for the medicine as certainly obviated the disease as it cured it when it was already formed."

Among the European writers on this disease I find the opin-

ions of Dr. Butter and Dr. Clark; they have given the results of their practice. The former seems to have depended upon the daily use of purgatives and cordials, he was successful with all his cases; the other used bleeding in all cases, and lost more than two-thirds of his patients.

FALLING OF THE WOMB.

(*Prolapsus uteri.*)

The prolapsus, or descent of the uterus, is a very common and troublesome complaint. It may occur at any period of life, but is much more apt to take place in females who have had several children.

The symptoms are at first ambiguous, and often attributed to other causes. The woman feels a weight and uneasiness about the lower part of the body; a dull dragging pain in the groins, and this is increased by walking, but goes off after resting or being in the recumbent position. Pains are also felt in the small of the back, and very frequently in the thighs.

By examination, the uterus is felt lower down than usual, and in bad cases is forced altogether out of its proper place, forming a large tumour externally. This, however, does not often take place, excepting shortly after confinements, or in very delicate females. The most common degree to which it protrudes is within an inch or two of the external parts, often causing retention of urine, or inability to retain it, a disagreeable secretion of irritating fluid resembling fluor-albus, and not unfrequently, if neglected, inflammation, ulceration, and, finally, adhesion to the neighbouring parts, rendering it irremediable without an operation. It is of the greatest importance, when a female has symptoms of this complaint, that it should be carefully attended to, as its existence in the slightest degree may occasion bad health and unpleasant sensations.

Cause.—This disease is most frequently caused by women getting up too soon after their confinements. When it occurs in females who have not been pregnant, it generally proceeds from a relaxed condition of the neighbouring parts. It is also frequently produced in young females by tight lacing, sedentary habits, constipation of the bowels, &c.

Treatment.—The remedies necessary for the removal of this affection, when it is found to exist in a slight degree, are, the supposed causes should be removed; the practice, if she has been in the habit of lacing, should be abandoned; if of a costive habit, gentle purgatives, such as magnesia, rhubarb, or extract of butternut, should be taken. If it be found considerably lower down than it ought to be, then it will be necessary to have recourse to mechanical means, for the purpose of keeping it in its proper place; the pessary is the most convenient and efficacious instrument for this purpose; they are of different materials, and of a variety of forms; some oval, some flat and circular, some like spindles, or the figure eight, others globular. I believe of all these, the flat and slightly elongated, that is, one that is a little longer than broad, composed of elastic gum, to be much the best. It ought to be of such size as to require a little force to introduce it into the part; it ought to be worn only during the day or when the patient is sitting up or moving about. When it is removed, an astringent wash, composed of camomile tea, with a small quantity of alum dissolved, should be thrown into the part by means of a female syringe. It will also be proper, if the patient be in delicate health, to take some strengthening medicine, such as the rust of iron, in doses of twenty grains, twice a day. The elixir of vitriol is also very good, especially if the bowels are confined.

If the prolapsus takes place soon after confinement, or if it protrudes very much from any cause, it will be indispensably necessary for the woman to remain in the horizontal posture for several days, after which, if there is no pain in the part, a pessary may be introduced. If the tumour, formed by the protrusion of the organ, from having been neglected, be large, hard, inflamed, or ulcerated, it will be improper to attempt to reduce it, until the swelling and inflammation are abated, by a recumbent posture,

fumegations, laxatives, and bleeding, may sometimes be necessary. After some days an attempt may be made to reduce it by pressing it gently with a fine cloth wet with warm water. It will be proper for the person to remain in bed a considerable length of time after a case of this kind, before it would be proper to introduce the pessary.

HEMORRHAGE OF THE WOMB.

(*Menorrhagia.*)

Hemorrhage of the uterus appears under a great variety of forms, both in regard to appearance and cause. Under this head I shall, however, speak only of those which occur in the unimpregnated state of the uterus. An immoderate flow of the natural secretions, must not be confounded with menorrhagia; the former consists in a mere superabundant flow of the natural secretions, in which the discharge remains liquid, and has not the tendency to coagulate; whilst the latter is, strictly speaking, a hemorrhage, in which the effused blood retains its power of coagulating. In many females, the secretion is very large, notwithstanding they enjoy a good state of health. In cases of this kind, the discharge must not be regarded as a disease, however copious it may be; but when this evacuation gives rise to debility, and other symptoms of ill health, it must be attended to.

Unnatural hemorrhage of the uterus is sometimes preceded by various premonitory symptoms; such as pain in the bones, bearing down sensation in the lower part of the body, a feeling of fulness in the uterus, frequent desire to pass urine, heaviness of the head, ringing or noise in the ears, slight creeping chills, transient flushes, and a sense of weight in the feet. In many instances, however, the hemorrhage commences without any indications of its approach. Sometimes a sudden gush of blood takes

place, which continues to flow very copiously for a few hours, and then ceases. More frequently, however, the discharge continues for four or five days, and in some instances, several weeks, and goes off very gradually. When it takes place about the period of the final cessation of the natural secretions, it is apt to become very protracted in its duration, more especially in females of a relaxed habit of body.

When this discharge is copious and prolonged in its course, or recurs at short intervals, it seldom fails to produce great relaxation and debility, and ultimately lead to a train of very disagreeable, and even dangerous, results. Females, who are much troubled with this hemorrhage, become pale, sallow, weak, and desponding. The whites (*fluor albus*), often extremely copious, almost universally occurs during the intervals of the hemorrhage, and contributes greatly to the general debility.

Cause.—Females of a vigorous constitution are more subject to this species of hemorrhage, than the feeble; and the predisposition to it is much favoured by whatever has a tendency to produce general plethora; such as a luxurious and indolent habit of living, the free use of high seasoned and nourishing diet, wines and cordials, tight lacing, frequent and long indulgence in the warm bath or bed; constipation of the bowels, &c.

Treatment.—The treatment proper in cases of hemorrhage occurring suddenly in strong and healthy individuals, is different in some particulars from that which is proper in the weak and delicate. When the female has had previous good health, and the pulse is strong and active, bleeding from the arm to the extent of six or eight ounces will be proper; and every thing which has a tendency to excite the action of the heart and arteries, must be removed. The patient should lie on a mattress, avoid getting up or walking about, and take but little of the lightest kinds of food, with cooling acidulated drinks. Having diminished the strength of the circulation by these means, recourse must next be had to such remedies as experience has shown to be capable of contracting or constraining the bleeding vessels. Among these, is the sugar of lead; this I consider the most certain of this class of remedies, but it must be used with caution, as it is very active, and it will not be safe to administer it if the bowels are in the least

constipated. It is to be given in doses of from two to three grains in combination with a grain of ipecacuanha, every hour, until three doses have been taken, unless the hemorrhage has previously ceased. If it produces pain in the stomach or bowels, castor oil in table-spoonful doses with twenty or thirty drops of laudanum, must be given every hour until the pain is removed. The tincture of kino is also a very excellent remedy, and can be used without any danger, in tea-spoonful doses every hour or two, according to the urgency of the case.

In cases where the disease has been of long standing, or where the female has had previous bad health from any cause, the above remedies would be of little use, and in some cases very injurious.

From much attention to cases of this kind, I feel satisfied that the appropriate remedies are such as tend to invigorate the uterine vessels. Doctor Dewees has recommended the use of *hiera picra*, in this species of the disease; it is a preparation of aloes, and would be altogether improper in the former species; in fact, it is one of the causes of bleeding of the womb in healthy females. I have employed it frequently in this species of hemorrhage, but do not recommend its use generally, as it is dangerous, notwithstanding very simple.

The treatment which I have found most beneficial, has been to apply irritating applications to the lower part of the spine or back bone. The plasters mentioned on page 133 will be the best; they ought to be applied frequently, and let remain on the part until a blister is produced. In urgent cases of this species of hemorrhage I have used the tincture of cinnamon with the happiest results. From thirty to sixty drops of it may be given every hour or two until four or five doses have been given. I have, in some instances, known the discharge to be stopped by this medicine alone. Strengthening medicines have also a salutary effect in this species of hemorrhage, especially the various preparations of iron. I have administered the prussiate of iron with advantage, in doses of from ten to fifteen grains, twice during the twenty-four hours. The acids, such as the nitric and muriatic, is a very safe and effectual means: a tumbler full of water made pleasantly sour with a mixture of these acids, may be taken three or four times a day.

PART III.

DISEASES OF ADULTS.

INSANITY, OR MENTAL DERANGEMENT.

IF any subject belonging to the medical science be an object of interest to mankind, it is insanity. As it is one among many diseases that peculiarly claims the attention of every well-wisher to humanity. It is a malady which often occasions the individual suffering under it to be deprived of his liberty, by having to be placed in a hospital or alms-house, under the care of strangers, who, perhaps, are altogether unfit for the office, and whose only point of relationship consists in similarity of circumstances. But this is not the only distress that attends a case of insanity. The sufferer's family or friends often groan under the severest anguish in consequence of his deprivation of reason, and the necessity which often exists for placing him in a cell. And what adds still more to the horrors of this disease, is, the circumstance that persons of the most cultivated understanding, are the individuals most frequently attacked.

We should have supposed that a malady, attended with such distressing results, would, before this, have been properly investigated, and the real cause set forth in so conspicuous a manner, that no one could help being convinced of it, and thereby have been enabled to escape its ravages. But, strange as it may appear to our readers, the cause and first symptoms of derangement have been lamentably neglected, owing no doubt, to the absurd and erroneous views which have been imbibed by individuals, causing them to believe that it was improper to attempt to cure

the complaint, which has had the effect of causing the public to view with suspicion, every attempt that has lately been made to show the causes, and the way in which they might be removed.

It is not my intention in this place to attempt to produce arguments, with the view of overthrowing the false theories which have been promulgated by medical men, as it would require more space than our limits will admit, and more time than, perhaps, many of our readers would like to bestow on a subject of the kind. I will, therefore, in the first place, very briefly notice some of the opinions relating to the cause of insanity, which I believe to be erroneous; secondly, what I have reason from experience in practice to be the cause; thirdly, the first symptoms; and, fourthly, the treatment which have been recommended by the most respectable authors; together with that which I have found effectual in the removal of the disease.

Erroneous opinions relating to the causes of Insanity.

Doctor Burrows, of London, in speaking of the cause of mental derangement, says, "Were I to allege one cause, which I thought was operating with more force than another, to increase the victims of insanity, I should pronounce, that it was the overweening zeal with which it is attempted to impress on adolescence, the subtle distinctions of theology, and an unrelenting devotion to a dubious doctrine. I have seen so many melancholy cases of young and excellently disposed persons, of respectable families, deranged from either ill-suited or ill-timed religious communications, that I cannot avoid impugning such conduct as an infatuation, which, so long as persevered in, will be a fruitful source of moral evil. The old Romans knew human nature better; they had a law which forbade any person entering upon the sacerdotal office before the age of fifty. This was to prevent theological discussions before an age was attained when a bad effect was not to be apprehended." Had this opinion been set forth by an atheist, or by one of our modern sceptics, I should not have been surprised, and would not have troubled my readers with it; but coming as it does, from such a man as Doctor Burrows, it must have great influence over the minds of many. For the purpose

of showing the Doctor's views of what he has supposed to be the cause of insanity, I will insert the following extract: he says, "Religion, it must be acknowledged, is the very essence of humanity. Without it, man has no guide but his passions—no law but his will. Even savages have some notion of a DEITY, or a future state, and although it be not always a GOD of MERCIES they adore, yet, divest them of the sense of a superior and presiding power, and the character of the people would sustain a material change, and, perhaps, for the worse. What follows, then, when scepticism, and infidelity reign, where Christianity once shed its pure and benign influence? The human mind having lost that prop which was its stay in the hour of need, chaos ensues; despair succeeds to hope; and reason, which establishes man's supremacy on earth, is overthrown. Here insanity supervenes on the defect of religion. As a cone inverted, so we may be assured is the state of morals where religion has been extinguished; it is a fabric without a foundation; and there insanity will emanate and most exceed."

I could make extracts from the writings of several authors of the highest respectability, who have supposed religion to be a cause of insanity, and some have even gone so far as to assert, that mental derangement consisted of a morbid train of ideas only, totally unconnected with the material condition of the brain or its membranes, and that it was altogether useless to apply remedies to the body with the view of restoring the mind, since they were unconnected. Others assert, that it is improper to attempt to restore an insane individual, as it is a disease of the mind alone, and must be inflicted by Providence as a punishment.

However absurd these opinions relating to the cause of insanity may appear to some, they are received as correct by a majority of those individuals who have not taken the trouble to investigate the subject.

The reasons which some have given for believing that the study of religion is a cause of insanity, is, that a majority of the insane talk on religious subjects. I am well aware that there is not, perhaps, more than one insane person to be found among fifty, who will not talk on religion; but there is one circumstance which appears to have been overlooked by authors, when inves-

tigating the subject; and that is, they have not discovered that a complete revolution always takes place in the minds of the insane; they have, indeed, informed us that the symptoms of insanity, are, that the afflicted individual forsakes his daily avocation, abandons or appears to be disgusted with his most affectionate friends, &c.; but we are not informed that the theme of conversation is also changed, or in other words, the subjects which they had formerly been fond of meditating upon, became disagreeable, and that they would embrace one which they could not bear to think of when sane. I have found this to be the result in every case of insanity which has come under my notice, and I trust this fact will be sufficient to convince my readers, that the simple circumstance of the insane conversing on religious topics, is not sufficient to prove that religion was the cause of the malady. For the purpose, however, of convincing them more fully of this important fact, I will relate the opinion of a physician who is well known to the citizens of Philadelphia, as a professor in one of the Medical colleges in the city, and to a certain class of individuals, as the most successful practitioner. My reason in not giving the public the least hint of this great professor's name on this occasion, is, because he has not published his opinions relating to insanity, and as they may appear ridiculous to many, and might cause some to suppose that I had inserted them with the intention of injuring his reputation. They were delivered by the doctor, when lecturing in the alms-house, to a large class of students, (of which I had the honour to be one). The subject of lecture was Insanity, and for the purpose of rendering it more interesting to the students, an insane person was brought into the lecture-room, and introduced to the young men by the doctor, in the following manner: "Gentlemen, the black fellow we have placed before you, is completely insane, and we have reason to believe that his derangement has originated from studying the scriptures; as is generally the case, he has let religion work upon his mind, until he actually believes that he is *** Almighty. Come, Bob, tell the young gentlemen what a great man you are. Do you not believe that you are *** Almighty." "No," was the old man's reply, "me nothing but a poor old coloured man." The presence of so many persons has evidently intimidated the old man, says the professor.

The history of this insane individual's case, was, so far as I have been able to ascertain it from the doctor and others, that he had been taught to read the Bible when young, and until he became insane, had a great desire to peruse it, but his bodily strength had become so impaired from indisposition and old age, that he was no longer able to support himself by his business, and was obliged to seek support in the alms-house. Shortly after his admittance, he became insane, and wanted to have command of the institution; that being refused, he declared himself to be the great being mentioned by the learned professor. Here the reader will perceive the great change which took place in this individual's mind. According to the doctor's own statement, he was changed from a poor humble believer in divine things, to the belief that he was himself the Divine Being. This, I trust, will be sufficient to satisfy my readers, that the revolution of which I have been speaking, does take place, and that it is not those who have reasoned upon religious subjects when sane, that talk of them when insane. I will relate a few cases, when speaking of the treatment, which will throw more light upon the subject.

With regard to the opinion above stated in relation to the mind being altogether unconnected with the body, I have nothing to say. I feel certain that no one ever will be able to tell the relationship which exists between them, and he that attempts to do so, ought to be treated as an insane person. There is one suggestion, however, which I will make, namely, that the mind and body of man cannot be supposed to be more distinct or independent of each other, than our bodies and the atmosphere that surrounds them; and we very well know, that if the atmosphere is rendered impure or deprived of any of its properties, that our bodies become diseased by it. I would also remark in regard to the opinion that it is improper to attempt the restoration of an insane person, on account of the disease being supposed to be a punishment, that I do not believe that Providence has any thing more to do in inflicting insanity upon an individual, than he has in causing an accident of any other kind. But there is a species of disease of the mind altogether different from the one I am now speaking of, which I believe to be an affliction direct from the hand of Providence, and one, too, which no physician has ever

attempted to heal. Those who wish to ascertain the nature of this species of disease of the mind, may inquire of the midnight assassin, the licentious coward who has spent his time and talents in destroying the characters of poor friendless females; or the thief after he is confined in his cell; these persons can, if they feel disposed, give a full description of that species of the disease which is not under the control of remedies.

Some authors are of the opinion that insanity is hereditary, especially among the rich, where it has been observable in every second case; whilst among the poor, the proportion has been ascertained to be but one in six. When I am convinced that intemperance and indolence are of hereditary origin, I will believe that mental derangement is of that nature; until then I will consider it as merely the effect produced by other causes altogether unconnected with the hereditary predisposition.

The reason why this disease has been observed to occur more frequently in rich families, is owing to the well known fact, that their habits are calculated to produce that peculiar unhealthy action in the glanular system which favours the production of insanity, and the sons of wealthy parents (especially in this city,) are well known to be addicted to the use of intoxicating liquors, and frequently die of mania-a-potu. When this takes place in a family where a parent has been afflicted with insanity, it is set down as originating from a hereditary predisposition, when in fact it was nothing more nor less than the effects of strong drink.

In relation to the opinion of the disease being hereditary in some degree among the poor, I will merely say, that I believe the opinion has originated from this circumstance, namely, that many poor parents keep their children employed at the same occupation, and in the same location, which may be unhealthy, and have the tendency of producing the same disease in different individuals. I have not known a case of insanity to occur in the offspring of a poor parent who had been afflicted with the malady when employed at a different business and in a different situation from which the afflicted parent had been accustomed.

In relation to the erroneous notion which has been urged by some of the European surgeons, and promulgated by a few of

our public practitioners and teachers in this city, in relation to certain changes of structure which they fancied were observable on dissecting the brain, such as ulceration, chronic inflammation, adhesions, &c., is altogether absurd; and I should suppose that if they did actually believe the appearances which they have stated to be present in the brains of insane individuals, they would be more cautious in producing it temporarily in their own persons. There is no occurrence more common in this city than to meet with persons labouring under fits of insanity, produced by taking a few glasses of wine or brandy, and if their bodies could bare this cause long enough, we might expect to see their fits of derangement continue for years; but its action on the stomach fortunately causes the individual to dislike it for a short time, and he generally recovers from his derangement without having any symptom of ulceration or chronic inflammation in the brain.

No one, I presume, will say that there is any difference between that species of insanity which is produced by stimulants taken into the stomach, and that which is produced from a supposed cause, excepting that the latter comes on more gradually, and with less uniformity.

I have made a number of dissections of the heads of persons who have died of insanity, which had been supposed to originate from various causes, and never have I found the least structural alteration in the brain. For the purpose of satisfying my readers that I have not been mistaken in my investigations, I will insert the following extract, taken from Dr. Burrow's work on insanity: "I have" he says, "assisted at several accurate anatomical investigations, conducted by eminent demonstrators of the crania of insane patients who have been under my care, and who had exhibited, up to the hour of their demise, the most furious symptoms of mania for months, and yet not a vestige of disease could be traced."

True Causes of Insanity.

The causes of insanity do not (as is supposed by some authors) originate in the brain; on the contrary, they are preying on some organ at a distance, the nerves, or blood-vessels; the digestive

organs, or the organs of generation, being the primary seats of the evil. These causes are, however, enhanced by many circumstances, as intense study; they may be either metaphysical or speculative, if they occupy the mind to such a degree as to cause the individual to neglect his general health by too close application, may predispose to insanity.

The passions and emotions of the mind which are most apt to produce disease in the organs of the body, and thereby predispose to insanity, are love, rage, ambition, reverse of fortune, disappointment, domestic displeasures, and greatest of all, mistaken friendship. This I believe to be the cause of the malady in most cases in this city. The young and unsuspecting individual leaves his native country and affectionate friends, for the purpose of seeking a fortune. He locates himself in a city, expects to become acquainted with respectable persons, and tries to render himself worthy of their true friendship; but alas, he soon finds that in place of being surrounded with friends as he supposed, he is surrounded with individuals whose only desire is to accomplish some selfish motive; he finds, perhaps, when it is too late to retrace his steps, that cold-blooded selfishness has rooted out every source of feeling; that true friendship is no where to be found, and that every one lives for himself. He finally becomes disconsolate from the fact that he knows no one in whom he can place confidence. This state of feeling preys upon the body; the individual appears dejected, becomes emaciated, and finally, insane. In fact, I know of no situation in which a young person can be placed which is more likely to produce this morbid state of body and mind, than to be associated with beings of his own species in whom he can place no confidence.

Sudden suppression of the excretions from the skin, as perspiration, is no uncommon cause of insanity; and it is in this way that atmospherical vicissitudes conduce to its production. A man of my acquaintance was subject to profuse night-sweats, caused by disease of the liver. He was advised to wash himself with cold water; the perspiration was suppressed, but insanity was produced.

Fevers not unfrequently leaves a predisposition to insanity, owing undoubtedly to its tendency to derange the nervous system.

The sympathetic irritation of accumulations in the stomach and bowels, has induced this disease, as also worms. A great number of chronic affections have a tendency to derange the mind. Among these diseases of the liver, I have reason to believe this is the most fruitful source. When this organ is impaired, the blood (which is formed in it,*) loses its proper qualities, either becoming too stimulating, or the reverse, to produce that effect upon the brain or nerves, which is necessary to keep up a regular action.

For the purpose of convincing my readers that the circumstances enumerated above are the cause of insanity, I will insert an extract taken from the writings of Dr. Burrows. He observes, when speaking of the cause of this malady, "The influence of sympathy in the production of insanity is very extensive, and probably is the most common cause of it. Although we know not the cause, nor the mode by which sympathies act, yet we have abundant proof of their operation in originating diseases which reciprocally act on the mind.

"There is no organ, with the morbid actions of which the functions of the brain so frequently sympathize, as the liver. As the connexion is intimate, so is it reciprocal; for morbid actions of the former equally, and perhaps as frequently, disturb the functions of the latter. In importance, the functions of this organ are only second to those of the brain, as far as regards the operations of the health; and as in the brain, so too in the liver, the circulation of the blood is complex, and very liable to be interrupted by extrinsic causes; hence the greater facility of disturbing its functions.

"All the passions, anger especially, violently affecting the sensorium, act immediately on the liver; and every excess that disturbs the functions of the stomach, easily determines blood in undue proportions to the vena portarum, where, on account of the remoteness of this vessel from the heart, the motion of the blood is always sluggish, and therefore congestion is easily induced. The bile, consequently, is secreted in scanty quantities, the alimentary processes become ineffectual, a morbid action of

* See disease of the Liver.

the connecting nerves follows, and the functions of the brain are implicated and disordered.

“Many facts attest, that blows on the head will create, not simply disordered functions, but disorganization of the liver; and *vice versa*, nothing is more common than instances of mental disturbance originating in injuries of this organ, or in secretions of morbid bile, or obstructions of the biliary ducts by gall, stones, spasm, &c.

“Diseases of the hepatic system will even originate delirium, furious mania, melancholy, and suicide.

“Insanity is much more common among the lowest classes than the supporters* of its mental origin are inclined to admit. Now, drunkenness is certainly the great vice of this class in Great Britain and Ireland, and the propensity is gratified usually by ardent spirits. In a table of 1,370 lunatics, admitted into the Asylum of Cork, Dr. Hallaran says 160 were insane from this unhappy indulgence.”

Disease of the lungs not unfrequently produce insanity. I have at this time, a young lady under my care, who has, for the last nine months, been in a state of derangement from this cause, owing, undoubtedly, to some change which the disease of the lungs has produced in the blood. About a year ago, consumption developed itself in her system. Three months after, the most decided symptoms of this affliction was established, she became melancholy, morose, and finally insane.

The consumptive symptoms continue, but she does not appear to be conscious of any disease of this kind, notwithstanding she coughs almost incessantly, expectorates freely, has irregular hectic flushes and night-sweats. Some authors deny that such a complaint has ever occurred, and say that cases of this kind are to be regarded as co-existing or concomitant diseases, without any mutual dependence between them. The fact of consumption being a cause of mental derangement is, however, well known. Dr. Casper says he saw a case of this kind in the Hospital Salpêtrière. When the cough and hectic symptoms were present, the patient was entirely free from derangement of mind,

* Those Physicians who believe that insanity is caused only by disease of the brain.

but IN THE ABSENCE of the phthisical symptoms, the patient was furiously insane.

Prostitution, and the diseases which always accompany it, together with the remedies which are generally employed by quacks for their removal, is a very common cause of insanity in this city; and, according to Mr. Esquirol, particularly so in Paris. He says, a twentieth part of the insane females admitted into the Salpêtrière, are previously prostitutes.

Symptoms of Insanity.

It is of the greatest importance that individuals should be acquainted with the first symptoms of this desperate malady, as it is much more easy to remove it in its first onset, than in a later period. It generally commences with paroxysms of dejection or exhilaration of the actions of the mind, resembling, at first, very much the effects which are produced by spirituous liquors. A single paroxysm, either of exhilaration or dejection, may continue from a few hours to several days, or even months. The patient's sensibilities, when labouring under a paroxysm of exhilaration, are keen, his ideas rapid; he is eccentric in his conversation and conduct; often betrays an unusually vicious disposition; forms various and extravagant plans for the increase of his fortune; enters into ruinous speculations, &c. When the paroxysm of depression occurs, a different train of ideas follow. A marked change will appear in the individual's habits, tastes, attachments, &c. He becomes jealous and wayward; is harassed by frightful dreams; has a desire to be alone, and will sometimes spend days without conversing with his friends. After this state of things has been in existence for some time, and the disease is completely developed, the expression of the countenance will appear wild and ferocious. The eyes in the stage of excitement become prominent, sparkling, and continually rolling from one object to another; the patient sings, whistles, hallooes, walks to and fro with rapidity, or stands still, with his arms folded and eyes fixed on one object; he does not sleep, sometimes for weeks together; the skin is often dry and cold, but more frequently covered with profuse perspiration; the bowels constipated, and

the urine small in quantity, and high coloured. The pulse is variable—sometimes full and strong, more generally, however, slow and intermitting.

On attending to the progress of insanity in individuals, I have observed that a majority of them labour under various disorders of the muscles and bones; some speak thick, articulate with difficulty, or stammer in attempting to express their thoughts; some totter or stagger as they walk, others have involuntary contractions in an arm or leg, and a very great number is found to be deformed in some way, most generally in the back or shoulders.

Treatment of Insanity.

From what I have said relative to the erroneous views of the cause of insanity, the reader will expect to hear of a great deal of useless and improper treatment: but he will be disappointed, as it is not my intention to hunt up or attempt to expose the errors of men who were, no doubt, honest in their pretensions; and there is no physician who will attempt to restore an insane individual, who will not find that he will commit a sufficient number of errors, both in relation to the pathology and treatment of the disease, to cause him to cast a veil over the mistakes of others. But I must say, that there are means employed by some of the physicians in this city—men, too, who have become grey in the profession—too ridiculous and disgusting to admit of description. What would my cotemporaries at a distance from Philadelphia think of me, if I were to attempt a description of the treatment which has been applied by those physicians who believe religion to be the cause of insanity, unconnected with disease of the body? Says an eminent European writer, when speaking on this subject, “It is rather mortifying to think, that even in the year 1827, (and I might add in the year 1839,) it was publicly maintained in some of our best medical societies of this metropolis—and by men who are charged with the instruction of medical youth—that insanity might exist as a purely mental disease, and quite independent of corporeal disorder!! This fact proves how ill understood is the subject of insanity, even among the better informed classes of the profession.”

In relation to the treatment which has been employed in the public institutions of this city, by men who believe that insanity is always produced by disease of the brain, independent of any other part of the body, will not be expected to use any other treatment but such as is known to be useful in removing disease of that organ. In short, the treatment which has been used during the last forty years in our public institutions by those physicians who believe that the cause of mental derangement is confined to the head alone, has been of such a nature as would have caused the most sane among them to become mad. It may all be embraced in the following words, namely, bleeding, cupping, blistering, and applying ice to the head. And by those who believe that religion has been the cause, attempts are made to demoralize the patients by associating them with the wicked and licentious. Absurd as these remedies may appear to some, they are believed to be the most proper by a large majority, notwithstanding there cannot be one person produced who has been restored by them. One of the first measures which these men advise is, to remove the patient from his friends and home, and to place him in some secluded institution. What benefit can be expected to result from this movement, when the insane individual does not know his friends from strangers, or his own private residence from a hospital; and if being associated with strangers should be proven to have a beneficial effect, could they not be employed by the patient's friends, and associated with him in a private and secluded part of his residence, with as much hope of success, as if they were placed in one of those institutions, the apartments of which are but little superior to the cells of a penitentiary? but I must abandon this subject, and proceed to more important considerations.

In every case of insanity, there is a diseased action going on in some part of the body, the symptoms of which will be present; but they will be as varied as the human countenance. Hence none but general principles can be laid down, nor is any systematic treatment, or such as I have noticed above as being used in all cases, admissible.

The first and most essential duty to be performed on being called to a person having symptoms of insanity, is to ascertain

what his previous habits have been, his mode of living, whether he has had previous ill health, &c. If his constitution be not impaired, and there is great excitement of the mind, a moderate depletion by cupping, purging, and low diet, may be premised; and the exhibition of anodynes, if the patient does not sleep, should follow. If, on the contrary, the individual is advanced in years, or his constitution has been impaired by indulging too freely in stimulating articles of diet or drink, the abstraction of blood should be avoided, and his bowels should be merely kept soluble, by administering small and often repeated doses of calomel and ipecacuanha; his diet should consist of light animal soups, &c. A patient of this kind generally requires large doses of opium before sleep can be obtained.

I would impress the importance of these preparatory means upon the minds of my readers, as I have had a number of insane patients in whom I had good reason to believe the disease was produced by improper management. It is well known that many affluent individuals in this city, subsist on the most highly stimulating articles of food and drink. After this habit has been continued for a length of time, the natural stimulants of the glands of the body cease to be secreted, and the actions of the nerves and brain are performed by means of the stimulating articles of food and drink; in other words, the mind is sustained by artificial means. If a person in this condition, becomes indisposed, from any cause, and applies to a physician who is not perfectly acquainted with the condition of the individual, or ignorant of the effects of remedies, and he commences the cure of his patient by bleeding, purging, and blistering, perhaps repeatedly, and at the same time forbids the use of all kinds of stimulating food or drink, the result is, generally, his patient sinks gradually and dies in a few days. If, however, he survives the treatment, a depressed state of mind, from the want of sufficient stimuli, ensues, which generally terminates in loss of reason.

The next most important step, especially if the patient has become delirious, is to obtain his confidence; and for this purpose, it will be proper, occasionally, to give way in some degree, to his hallucinations. This must, however, be done with caution. In general, it is improper to encourage, in any degree,

the particular error, or false ideas under which the patient labours. On the other hand, an abrupt or absolute contradiction, is perhaps still more unfavourable than indulgence, as it seldom fails to excite the anger of the unfortunate sufferer against the person who thus opposes the current of his hallucinated notions. When the patient is upon the recovery, says the late Dr. Benjamin Rush, we may *oppose* their opinions and incoherent tales, by reasoning, contradiction, and even ridicule.

A very excellent means for moderating the violence of a paroxysm of mania, is, to confine the patient in an apartment from which the light is excluded. M. Esquirol speaks much in favour of the soothing effects of darkness on maniacs.

The swing is also a very excellent method of subduing stubborn patients; this was strongly recommended by Darwin, Cox, Hallaran, Horn, and others. But some fatal accidents having taken place from its employment, caused it to lose its reputation; notwithstanding this, I believe there is not a better and more harmless method of subduing, or rendering patients obedient. I have used it in a number of cases with decided advantage. A very convenient method of forming a swing is, to attach a cord by means of a staple, in the ceiling of the chamber; to this a common arm chair, having a foot board, can be attached; the patient is to be placed in the chair, and secured by tying the feet and arms to it. The rotary motion of the swing ought to be gradually increased until the patient becomes very sick. I have had patients who utterly refused to take medicines until they were placed on the swing a few times, after which they would readily submit to any thing when threatened with its employment.

Sickness produced by administering emetics, especially the tartar emetic, has been of decided advantage in my practice. It ought to be used in the stage of excitement, and given in sufficient quantities to keep up slight nausea for several days together, half a grain given every two or three hours, is generally sufficient. It can either be given in the form of a powder, or dissolved in water. Doctor Monro, speaking of this remedy, says, "Evacuants is the best cure, and vomiting preferable to all others; and if not carried beyond the patient's strength, nor crowded too fast

upon him, his health of body will visibly improve so long as vomits are continued." Doctor Burrows's opinion of emetics is, (and I agree with him,) that their beneficial effects in this disease is not to be attributed simply to their evacuating properties, but rather to their well-known effects on the circulation generally. Gentle purgatives are also of importance in the cure of insanity. Black hallebore is the most ancient article of this kind which has been used, and has been celebrated, especially in the cure of melancholy, for upwards of 2000 years. I have not found more advantage from this article of medicine, than from others of the same nature. As there is always a relaxed condition of the organs of the body attending this disease, it is proper to administer remedies, (and especially purgatives,) of an astringent nature. Active purges are sometimes proper at the commencement of the treatment, for the purpose not only of overcoming the torpidity of the bowels, but to remove accumulations from the colon and rectum; for this purpose twenty grains of calomel, the same of extract of hellebore, and six grains of extract of jalap, were given by Dr. Willis at one dose, in insanity. My method has been, where active purgation appeared necessary, to administer small quantities of calomel, say half a grain every three hours, for about two days previous to administering the purgative; I would then give eight or ten grains of the extract of jalap and thirty or forty of powdered rhubarb: by this means, I have found that the irritating contents of the liver and bowels were removed with more certainty, than by giving the calomel with the purgatives, and one dose of the purgative medicine is generally all that is required.

Foxglove, (*digitalis*.) This appears to be the most favourite remedy with our modern physicians in the removal of mental derangement. I have seen no good result from its use, excepting in cases produced by disease of the lungs. The most beneficial effect which this medicine produces on the human body, is its diminishing the frequency of the pulse. I have already stated that the pulse was generally too slow in this disease. It therefore cannot be expected that a medicine which has a tendency to render it more slow could be of advantage: but there are cases of insanity connected with disease of the lungs, in which the pulse

will be altogether too frequent, and the foxglove may be of advantage. It can be given in doses of one grain of the powdered leaves twice a day, or twenty drops of the tincture twice or thrice a day, and either of the preparations gradually increased until giddiness of the head or sickness of the stomach is produced, when its use must be laid aside, or suspended for the time.

Slightly astringent and strengthening remedies have been more decidedly beneficial, in my practice, than any other, when employed at the proper period, and after the necessary depletion had been used. The extract or decoction of dogwood bark is an excellent strengthening medicine in this complaint, as it contains astringent properties, (for its preparation, see page 136); it is to be given in combination with small quantities of calomel: two grains of the extract and the fourth of a grain of calomel, should be given twice a day.

I have already given my opinion in relation to blood-letting in this complaint. It ought never to be employed in a simple case of insanity. Doctor Burrows, a physician whose high standing must be known to medical men generally, says; "Following example rather than experience, I tried depleting, by blood-letting, for several years; but discovering my error, I became more cautious, and, I believe, that I have scarcely ordered venesection in six cases of simple mania or melancholy, in as many years. My conclusion is, that since I changed my practice, more have recovered, and certainly the cases have been less tedious and intractable." I would also say in regard to taking blood with cups or leeches, that it is generally improper, excepting as I have already said, at the commencement of the disease; they never ought to be applied upon the head, (as is the custom,) but on the back of the neck, or along the spine.

Counter irritating applications, such as blistering, plasters, tartar emetic, &c., are powerful remedies. The irritating applications mentioned on page 132, is the best article of the kind which I have employed, as they give no pain, and they will stick on the part without any trouble; neither they nor any other application should ever be put on the head, but applied along every part of the spine, and particularly on the back of the neck.

A very important object in the medical treatment is to procure

for the patient sound and refreshing sleep, and the endeavours should be directed towards insuring it for many nights successively. If it can be produced by exercise and regimen, they will be the best means; but if not, medicines having a tendency to produce it must be given; such as camphor, extract of henbane, and hops. The following formula has answered the purpose in several cases: Take of camphor, half a drachm; tartar emetic, one grain; extract of henbane, twenty grains; mix, and divide into four parts or pills, one to be taken every hour, if sleep is not obtained.

The patient's clothing should be warm and comfortable; and the food prevented from being devoured with voracity. In the majority of cases, a plain and regular course of living is essential. If the patient has been accustomed to highly stimulating food and drink, he ought not to be wholly debarred from their use. When symptoms of indigestion exist, suitable medicines and diet should be enforced. When exhaustion is apprehended from a long continuance of high excitement, the most nutritious food should be given.

It was my intention to have related a few cases of this disease in individuals, who have been restored, after being afflicted a number of years, together with the remedies made use of, but must decline, as I have already carried the subject to a much greater length than I intended at the commencement.

LIVER COMPLAINTS.

(*Hepatitis.*)

Disease of the Liver is one of the most common complaints to which the inhabitants of the United States are subject, and notwithstanding its frequency, it is much oftener supposed to be the cause of delicate health, than what has actually been found to be

the case. This organ is also liable to a variety of changes in its structure, which has a tendency to interrupt its natural action. It is my intention, however, to notice but two of them in this place, as they all require much the same remedies; and as a lengthy description would be likely to perplex the general reader. I will therefore describe the two most common species of the complaint, under the heads of acute and chronic inflammation of the liver. In the first place, however, for the purpose of rendering the subject more explicit, I will insert a few practical remarks relating to the uses which this important viscus is designed to perform in the human body.

Practical remarks relating to the uses of the Liver.

It is not my intention to enter into an anatomical description of the liver, but merely to show the great influence which it exercises over other parts of the body. Every organ of which our bodies are composed, has its part to perform, and, although in reference to many parts of the human system, we are as yet unable to point out their uses. In proportion, however, as anatomy, physiology, and pathology, are pursued, uses are found in addition to those which were previously supposed. This organ, in the first place, aids digestion, by performing the important office of separating the nutritious part of the food after it is taken into the stomach, from that which is unfit to enter into the circulation; this being performed, the part which has been absorbed by the liver, is conveyed to the lungs, where it is fitted for circulating through the body in the form of blood, and after it has passed through every part of the body by way of the heart and arteries, it is absorbed by the veins, and again carried back, together with the impurities which may have been formed in the body, to the liver, where it again undergoes the process of refining, the purest part being returned to the circulation, after being submitted to the action of the lungs, and the impurities, together with that part of the blood which is no longer of use to the system, is returned by the liver to the stomach and bowels in the form of bile; this is of the greatest importance, on account of its being possessed of a peculiar stimulating power, which has the effect of keeping up a

healthy action in these parts. From this view of the subject, it will readily be perceived how indispensably necessary a healthy action of the liver is to the well-being of an individual; for if the liver should be impaired in the least degree, the impurities of the blood could not be separated from the purer part, and the blood, thus impure, passing through the lungs, would produce disease there resembling consumption, and passing, as it does, from the lungs to the brain, and other organs of delicate structure, in this impure and stimulating condition, would induce that heaviness, that unwillingness to think or act, that so many complain of; and finally, the blood becoming still more impure and stimulating, would produce an unnatural action in the nervous system, or, that **DERANGEMENT OF THE MIND, termed INSANITY.** And these are not the only desperate results which would occur from a deranged condition of the liver; for the impurities of the blood, (as I have already stated,) are absolutely necessary to keep up a healthy action in the stomach and bowels: these being retained in the circulation, or secreted in deficient quantities, the intestines are deprived of their proper stimulus, and hence originates the cases of obstinate constipation of the bowels, so frequently complained of; or after the bile has been retained in the circulation until an unnatural quantity has been formed, and the liver thus compelled, as it were to act, throws out too great a quantity of bile into the stomach and bowels at one time, which has a tendency to produce disease, in place of a healthy action, in the digestive organs, causing obstinate diarrhœa, dispepsy, &c.

The authority for the correctness of these views, is founded upon a series of observations, more particularly upon some hundreds of dissections, in which I found the liver gorged with bile, the veins filled with blood of a blackish green colour, and the intestines filled with fœtid air. The blood, too, when a vein is opened during life in an individual labouring under this affection, flows very tardily; sometimes, indeed generally, it dribbles away, drop by drop, and is black.

Acute inflammation of the Liver.

The acute species of disease of the liver, comes on with pain in the right side, extending up to the shoulder, and this is much increased by pressing upon the part, and is accompanied with a cough, oppression of breathing, and difficulty of lying on the left side, together with nausea and often with vomiting of bilious matter. The urine is of a deep yellow colour and small in quantity; there is a loss of appetite, great thirst, and costiveness, with a strong, hard, and frequent pulse; and when the disease has continued for some days, the skin becomes tinged of a yellow colour. In general, the bowels are costive; yet in many instances of the disease, especially in hot climates, diarrhœa attends from the beginning of the malady; the patient not unfrequently being seized with violent griping, followed soon by small watery or slimy discharges from the bowels, accompanied with soreness at the pit of the stomach.

For a further account of the symptoms of this species of liver complaint, see bilious and yellow fever.

Cause.—This species of liver complaint, has been ascribed to a peculiar miasm floating in the atmosphere, especially in warm climates, where it is much more prevalent than in the temperate and colder latitudes. There is no doubt in my mind but that this cause often contributes to the production of this disease; but I believe it to be rather a predisposing than an exciting cause. Miasmata, undoubtedly, possesses power to derange the functions of the liver; and it may be reasonably presumed, that where, from the general prevalence of this cause, in combination with a high degree of heat, this organ is in a constant state of excitement, or functional derangement: so that every adventitious exciting cause, such as the sudden change of temperature, damp night air, highly seasoned or indigestible food, and consequent gastric derangement, the improper use of ardent spirits, &c., would be likely to produce acute inflammation in the liver.

Beside the causes just mentioned, there are many others capable of giving rise to this disease, such as over fatigue, a draught of cold water while the body is in a perspiration, metastasis of

gout and rheumatism, irritation from biliary concretions in the gall-duck, &c.

Diagnosis.—Acute inflammation of the liver may be distinguished from pneumonia or pleurisy, by the following circumstances. In pleurisy, the cough and oppression in the chest are much more distressing than is produced by disease of the liver. In the latter affection, the patient feels less pain when lying on the affected side; in the former the reverse occurs. In disease of the liver, pressure over the right hypochondrium, or region where this organ is situated, greatly aggravates the patient's sufferings, whilst pressure in a case of pleurisy produces little or no increase of pain; in the latter, great increase of suffering is produced on making a full inspiration; in the former, no difference is felt on drawing a full breath.

Distinguishing between inflammation of the liver and stomach, is rarely attended with any difficulty. The latter disease is generally attended with a small and weak pulse, whilst in the former it is almost always very full and hard. In disease of the stomach, great debility usually attends from the onset of the complaint, and every thing taken into it is almost immediately thrown off. In inflammation of the liver, the strength is at first not much impaired; and although vomiting may frequently occur, it is not so readily produced by articles of food or drink as in disease of the stomach. In the former, pressure over the region of the liver, and in the latter, pressure over the stomach, causes most pain.

Treatment.—This being an inflammatory affection, bleeding has, of course, been the first remedy with a certain class of physicians, much, in my opinion, to the injury of their patients. "In this disease," says Dr. Johnston, "as in other inflammatory affections, the abstraction of blood is a primary remedy. There are two reasons for resorting to decisive blood-letting in the commencement of this affection, namely, the necessity of promptly lessening the general momentum of the circulation, as well as the congestion in the liver and portal vessels; and the importance of subduing the general phlogistic condition as early as practicable, in order to favour the effects of mercurial remedies, upon

the prompt influence of which much of our reliance must be placed."

I need hardly inform my readers that I object to this mode of procedure in the treatment of simple inflammation of the liver, in toto, and am prepared to make it appear, that patients who recover after general and copious bleedings have been employed, may attribute their recovery to a mere accidental cause, or the strength of their constitutions. In my short account of the uses of this organ, at the commencement of this subject, I made it appear evident that the liver was the only channel by which the nutritious part of the food taken into the stomach could enter into the circulation; and I should suppose that every physician who understands the anatomy of the human body would readily agree with me, that as long as the liver is in a state of inflammation or even congestion, as Dr. Johnston supposes it to be, it would not perform its offices in the slightest degree. This can easily be proven from the fact, that medicines administered to patients labouring under this affection, do not have the desired effect; for instance, calomel, which can have no influence upon the system, unless absorbed by the liver, can be given in almost any quantity without the least danger of salivation. Hence we hear of physicians in the south, where the disease is prevalent, boasting of the large doses of this drug which they have been in the habit of administering to their patients.

I trust the foregoing remarks will make it appear sufficiently evident, that all communication between the stomach and circulation during the existence of this complaint is stopped; and now I will appeal to those physicians who are in the habit of bleeding profusely in all cases of inflammation. Is it reasonable that the circulating blood of a patient should be removed from the system, so long as there is no prospect of more being formed? or, in other words, when there are no means by which food or drink of any kind can be made to strengthen the patient, especially when there are other means by which the disease could be subdued?

The way in which this injudicious and unscientific practice recommended by Dr. Johnston, and employed by many physicians in this city, proves destructive in most cases, is the abstrac-

tion of a large quantity of blood at the commencement of the complaint, produces a complete prostration of the nervous system, and so completely weakens the action of the heart and arteries, that a reaction of the circulation is prevented; the skin continues dry, and in place of the congestion of the liver being removed, it becomes more engorged. The principles of life being thus broken up, sluffing or mortification takes place. This result is of daily occurrence in this city; yet, because it is customary to bleed in inflammatory diseases, it must be persevered in. Since I commenced writing on this subject, I have been requested by a very respectable and wealthy gentleman to visit a poor man, who had been attacked by the disease a few days previous. He had severe pain in his right side, accompanied with fever, for which he was advised by one of our city doctors (who, unfortunately for his patients, is in the habit of bleeding in every complaint,) to have thirty ounces of blood taken from the arm; this weakened him very much, but did not relieve the pain or fever in the least. At my first visit I found him labouring under great nervous excitement, skin perfectly dry, great pain on pressure over the region of the liver, constant fever, constipation of the bowels, and tongue much coated. The remedies which I employed had the effect of removing all these symptoms, and the only thing complained of was distressing weakness and sensation of sinking. His appetite was good, and the food taken was properly dissolved by the stomach. In fact, there appeared to be nothing to prevent his recovery in a few days; but, alas, mortification had taken place in the liver.

I would not, however, have my readers suppose that because I am opposed to general bleeding in this disease, that I am not in favour of having it employed in any inflammatory affection; on the contrary, in cases of inflammation of the pleura, lungs, or almost any other organ in the body, I say bleeding is the most proper means that can be employed, and in some cases it ought to be persevered in as long as blood can be obtained.

The treatment that I have found most beneficial, and which I would recommend in acute inflammation or congestion of the liver, is at the commencement of the disease; I would give an active dose of tartar-emetic. This medicine has a peculiar effect in re-

laxing the contracted parts of the body, and it will produce its effect in this complaint when no other remedy can, as its action is not depending upon the liver. Frequently, in two or three hours after it is administered, the liver will commence pouring fourth large quantities of black matter, which generally removes all danger. If, however, the vomiting should be incessant at the commencement of the attack, I would combine the tartar-emetic with opium; two grains of the former to one of the latter is generally a sufficient dose. Dr. Johnston says, in speaking of this remedy, "That in conjunction with antimonial powder, (the tartar-emetic,) opium forms a most admirable auxiliary to mercury in acute hepatitis, (inflammation of the liver,) not only soothing many uneasy sensations of the patient, but determining to the surface, and promoting a diaphoresis, (perspiration,) which is of infinite service in this as in most other affections."

Mercury in the form of calomel or blue pills, is used by a majority of the physicians of our day, indiscriminately in all cases of liver complaints; and notwithstanding I believe it to be altogether useless in some cases of this species of disease of the liver, and in others decidedly injurious, it would be preposterous in the highest degree for me to attempt to convince individuals generally that it is so. I will, however, for the purpose of showing that other physicians as well as myself, have doubts about its usefulness in this affection, make an extract or two from a very eminent practitioner in the south. He says, "It is often very difficult to obtain the timely operation of mercury on the system, merely from its internal exhibition. Where there is reason to apprehend difficulty in this respect, mercurial friction should be used in addition to the internal employment of calomel. One or two drachms of the ung. hydrarg. (blue ointment,) may be rubbed in on the arms or thighs three or four times daily, where pytalism appears to be tardy in its appearance." Dr. Johnston remarks, "That the absorption of mercury into the system, and the consequent early induction of general mercurial action, is accelerated by causing the patient to swallow a considerable quantity of warm diluting drinks, as thin water gruel every night at bed time." If the Doctor had caused his patient to swallow warm water or gruel every night without the use of calomel, he

would have been likely to have met with the same pleasant result. It is well known that warm drinks have a relaxing tendency, and if taken in the night would cause the patient to perspire, and of course be relieved. This, no doubt, was attributed by the Doctor to the calomel, as he was of the opinion that no other means could be of any use. For my opinion of the effects of mercury after the liver has begun to act, and is pouring out bilious matter, I will refer the reader to page 32.

The bowels should be kept in a loose state throughout the whole course of this disease, and calomel may constitute an ingredient in the purgatives employed; one or two grains of calomel and ten or fifteen of rhubarb, may be given every three hours, until the bowels are well evacuated.

In the more violent and rapid cases of this disease in southern climates, I would advise the abstraction of a few ounces of blood, with cups or leeches, from the seat of pain. One or two ounces taken in this way, will give more relief than taking thirty or forty from the arm; and taking blood with cups never produces that prostration of the system which is caused by taking it with the lancet. After the cups have been removed, I would advise the application of a large fly plaster, with a view of producing a blister over the affected part. This has never failed, in my hands, to give considerable relief to the patient, and by creating a permanent determination to the external surface, assists, in a considerable degree, to subdue the pain. As loss of energy in the extreme blood vessels and nerves is often the cause of this disease, it would appear reasonable that their energy should be restored. The means which I have found best calculated to effect this purpose, are stimulating frictions and warm applications to the external and extreme parts of the body. Bottles filled with hot water applied to the feet, and frictions with spirits of wine mixed with pepper, or flannels rung out of hot brandy, are among the most effectual.

After the evacuations from the bowels have become of a dark appearance, and the skin frequently covered with a profuse perspiration, the mineral acids, particularly the nitric acid, may be administered with benefit. One drachm of this diluted by mixing it with two ounces of water, thirty or forty drops of which may be given three times a day.

The diet should be light and digestible, such as farinaceous liquids and weak animal broths, taken in moderation, will generally be sufficient during the first four or five days of convalescence.

Chronic inflammation of the Liver.

The most frequent symptoms of this species of disease of the liver, are, a sense of weight or uneasiness in some part of the body, most generally the right side or top of the shoulder; sallow complexion; impaired or caprecious appetite; constipation, or offensive evacuations from the bowels, often of a dark, but more generally of a clay colour; progressive emaciation and debility. The pain is sometimes much increased on pressure below the ribs of the affected side; most generally, however, no distinct pain is experienced in the region of the liver from pressure. In these cases, a sense of uneasiness and tightness is felt in the stomach, accompanied with flatulency, slight colic pains, occasional sickness and vomiting. The white of the eyes, and skin of the face, neck, and breast, become tinged with a yellowish hue, and the countenance acquires a contracted and sickly aspect. An individual labouring under this disease, is also affected with some degree of cough and expectoration; the breathing is not unfrequently difficult and oppressed, often accompanied with a feeling of sinking, &c. &c.

Treatment.—I again feel myself called upon to caution individuals against the use of the means which are daily employed by physicians for the removal of this complaint, and feel sorry that I have to denounce a plan of treatment used by many of my warmest friends in the profession; but trust they will pardon me when they have discovered their error. I feel considerable satisfaction in being able on this occasion to employ the language of a highly eminent practitioner, in relation to the use of mercury in this species of disease of the liver. He observes: “The unthinking and less skilful part of the profession, almost universally agree that mercury is here the ‘fit and only remedy,’ and, in general, they scruple not to prescribe it very freely; but those whose experience and judgment are most to be depended

on, are very cautious in the employment of that mineral, and place little reliance on it in the treatment of this disease, when uncombined with other medicines, and a correct diet and regimen. Notwithstanding, mercury, when judiciously prescribed as an alterative in small doses, and in conjunction with antimony and opium, is sometimes very beneficial, and never hurtful: but salivation is almost invariably to be avoided, at least in this country. In tropical climates, this remedy may be carried to a greater extent in treating the present disease, not only without injury, but with advantage; yet even in such a situation, I think much mischief is often produced by its incautious employment, in consequence of practitioners seeming to consider its utility to be nearly proportionate to the quantity speedily introduced into the system, and from their forgetting that diseases of a chronic character, which are slow in their progress, can never be cured quickly, or by violent measures. When calomel or any other mercurial preparation is employed in liver complaints, it should be administered in such small doses as relieve pain and irritation without very sensibly affecting the constitution."

These views accord with my own in every particular relating to the use of mercury in disease of the liver, notwithstanding they were not put into my hands until after I had commenced writing on this subject. I discovered the impropriety of making too free use of mercury shortly after I commenced practice in this city, and since that time I have had ample opportunities of trying its effects in various ways, and in the different species of disease in that organ; and notwithstanding physicians and individuals generally, consider it absolutely necessary that persons labouring under affections of the liver should use it to salivation, I denounce the practice, and am prepared to convince any rational and unprejudiced person by practice, that the immoderate use of this drug in the cure of disease of this organ, is absurd, unscientific, and injurious in the highest degree.

The plan of treatment which I have found effectual in the removal of this disease, and that which I would recommend, is to administer small quantites of calomel at the commencement of the complaint, in combination with ipecacuanha. I would here, however, beg leave to make a small digression. As I have had

occasion to recommend the use of ipecacuanha very frequently during the composition of this work, it may be interesting and useful to the reader to have a full account of it. I think proper to insert it in this place, as I consider it of the greatest importance in the treatment of this complaint.

Ipecacuanha is a plant found growing in moist situations in the forests of the provinces of Pernambuco, Bahia, Rio Janeiro, Paulensia, Marianna, and other provinces of the Brazils. There are three varieties of the root—the brown, the grey, and the white. The first mentioned is much the best, and when administered in large doses of ten or fifteen grains, it operates as an emetic; in smaller ones of two or three grains, as a diaphoretic and expectorant; and in still smaller doses it acts as a tonic, stimulating and giving energy to the digestive organs. When given for the purpose of producing vomiting, it is mild, safe, and certain in its operation, evacuating completely the contents of the stomach, and does not weaken it so much as any other emetic. “It is an established fact,” says an eminent European author, in speaking of this article, “that an emetic given at the commencement of continued fevers, will sometimes cut short their progress, or if it fails in accomplishing this object, will give to the subsequent symptoms a milder aspect; and with this view, fifteen or twenty grains of ipecacuanha powder may be used with great advantage. In doses of two or three grains, repeated every three or four hours till it operates by vomiting, sweating, or purging, it is found of eminent utility in dysentery and chronic looseness. Indeed, its effects in these several complaints are often invaluable, and it is perhaps the most beneficial aperient in dysentery; for when we can bring it to act in this way, it produces a steady determination of the peristaltic motion of the bowels downwards, at the same time that it strengthens their internal surface, and relaxes the skin.” He further observes: “In still smaller quantities of a grain or half a grain, three or four times a day, it strengthens the digestive organs, and is very beneficially employed as a remedy for indigestion, bilious and liver complaints. In such cases, it may either be used alone, made into pills with a little hard soap, or be combined with steel, or any bitter extract.”

The physician who first made the medical qualities of this root known in France, was rewarded by Louis XIV. with 1,000 pounds sterling for the discovery.

Two grains of ipecacuanha, and the fourth part of a grain of calomel, administered every night on going to bed, has answered better in this species of the disease than any other remedy which I have used. Giving calomel in such doses, may appear useless to those who have been in the habit of taking fifteen or twenty grains at a dose; but they must recollect that chronic disease of the liver is one which cannot be removed in a short time by any treatment. Physicians generally require a year, under the most favourable circumstances, to make a cure; and I should suppose that persons of the most superficial knowledge, would readily perceive that no constitution could bare the free employment of such an active remedy so great a length of time. All that is requisite in the administration of mercury in any form, is to keep up a regular action in the liver, and thereby assist nature in performing its work, until the disease has had time to be removed. Some physicians, I am aware, go upon the principle that if a little medicine does good, much will do more good; but this plan will not answer in using mercury.

If the individual is much debilitated by the disease, it will be proper to administer some strengthening medicine at the same time the calomel and ipecacuanha are being employed. For this purpose, I have given the following mixture with advantage:

Take of compound infusion of gentian, five ounces; carbonate of soda, two scruples; tincture of cascarilla, half an ounce; mix and give three table spoonfuls three times a day, shortly after taking food.

A bath composed of highly diluted nitric and muriatic acid, has also been of great utility in my practice. Dr. Scott, of London, speaks in the highest terms of this remedy in his practicing, when in India. The way in which it is prepared is, to take three parts in measure of strong muriatic, and two of nitric acid; a pint of this mixture is to have an equal quantity of water added to it. The bath is to consist of an ounce and a half of this diluted acid, to half a gallon of water, which is, in general, sufficient to form the bath. This quantity may be put into any con-

venient receptacle, into which the feet are to be immersed for twenty minutes or half an hour every night, the legs and other parts of the body being in the meantime frequently sponged with the same. In the cold season of the year, the bath may be made warm by the addition of a little hot water. The patient is to bathe daily during the first three weeks, and after this every other day.

Dr. Scott further observes, when speaking of the employment of this bath: "As a general rule it may be observed, that whenever the mercurial preparations are indicated, the nitro-muriatic acid will be found useful, with this difference, that in cases where mercury is highly injurious, from delicacy or peculiarity of constitution, or from other causes, the nitro-muriatic acid may be employed with safety and advantage." Mr. Annesley also speaks in the most favourable terms of this remedy: he pronounces it to be "one of the most valuable remedies we possess" in the cure of chronic affections of the liver.

Blood-letting in this species of the disease, as in the former, for the purpose of removing pain from any part of the body, cannot be employed without endangering the patient's life. Dr. Annesley says: "In the chronic hepatitis (liver complaint) of India there are few cases where repeated though moderate bleeding will not be advantageous. After each leeching, an emollient poultice should be applied over the right hypochondrium." If the Doctor had applied the emollient poultice to the right side without the application of the leeches, he would have been likely to have derived as much benefit. Blistering the right side occasionally, in case of pain, is very beneficial: they ought not, however, to be applied so frequently as they generally are, and the flies ought not to be used for the purpose of blistering females; in cases of males they are the best. Applications of mustard, or frictions with tartar emetic ointment in cases of the former, are the most proper irritating applications that can be applied to the side.

It must be recollected in treating this species of liver complaint, that it is tedious of cure, generally requiring from six months to a year under the most favourable circumstances; but when the symptoms do not yield, in some degree, to the remedies

which I have recommended in two or three months, the disease may be expected to be caused by some morbid action in a remote part of the body, such as disease of the spine, or spinal marrow, which will require to be removed before a healthy action can be produced in the liver. When this is ascertained to be the case, I would advise the treatment recommended on page 134.

CONSUMPTION.

When speaking of the effects which were produced in the various organs of the body, by disease of the spinal marrow, (see page 106) I made it appear evident that an individual might be labouring under all the symptoms of consumption of the lungs, without it actually being the case. I now intend speaking of the most common diseases to which the organs of the chest are liable, and such as are, on account of the similarity of symptoms, mistaken for consumption of the lungs; such as INFLAMMATION OF THIS ORGAN, ASTHMA, BRONCHITIS, PLEURISY, &c., before describing the true consumption or ulceration of the lungs.

For the purpose of convincing my readers that what I have stated above is founded on fact, I will insert the following extract, taken from Dr. John Abercrombie's publications. He observes: "From the facts which were stated in the former part of this inquiry, it appears that cough, purulent expectoration, hectic fever and wasting, do not necessarily constitute the true consumption of the lungs. On the contrary, there is every reason to believe that all these symptoms may proceed from various other morbid affections; some of them as untractable as the true consumption, but others affording a much more favourable prognosis; and that all of them may be fatal with the usual symptoms of consumption, and yet the substance of the lungs be found entirely free from disease."

INFLAMMATION OF THE LUNGS.

Symptoms.—Inflammation of the lungs is accompanied with pain in the chest; constant and anxious difficulty of breathing, alleviated by an erect position; small quick pulse, and fever. These symptoms vary considerably in different cases. The difficulty of breathing is the most constant symptom, and becomes more difficult as the disease advances. The pain is sometimes peculiarly distressing, and at others heavy and less excruciating; it may be either in the right or left side, or under the breast, or collar bones, spine or shoulder. The cough is often very distressing, being in some cases dry, in others attended with spitting. The pulse becomes weak and fluttering; the thirst considerable; the tongue often dry and coated.

This disease may exist in delicate persons with little or no pain. In an instance of this kind, the real nature of the case may be known by the constant difficulty of breathing, pain when coughing, and presence of fever.

Cause.—The most common causes are exposure to cold; violent exercise; violent coughing; acrid vapour, and dust taken into the lungs with the atmosphere; to which may be added every thing that conducts to a full habit, as luxurious living, indolence, expelled eruptions, constipation, &c.

Diagnosis.—I do not think it necessary to trouble the reader with the method of distinguishing between inflammation of the lungs and inflammation of the neighbouring organs, as they all require much the same treatment. But I wish it to be recollected that those organs are liable to other diseases, requiring an opposite plan of treatment. By paying attention to the symptoms, the reader will be able to form a correct judgment of the different diseases.

Treatment.—The first remedy which should be employed in this affection, should be blood-letting, both by the use of the lancet and cupping, or the application of leeches. The bleeding at the commencement should be prompt and copious; if the individual has had previous good health, thirty or forty ounces should be taken at once, and the operation should be repeated in ten or twelve hours if the patient is not much relieved. Imme-

diately after the bleeding, a large fly plaster should be applied over the breast: cooling purgatives ought also to be given, such as epsom salts, until the bowels are freely evacuated. After this, small doses of opium are to be given for the purpose of allaying the irritation of the lungs;—one grain of the former to a fourth of a grain of the latter, may be given every three hours if the patient does not sleep, or if the cough is not removed—recollecting, at the same time, to prevent constipation by administering cooling laxatives. A very excellent febrifuge and laxative can be made by taking of sub-carbonate of potash, two drachms; purified nitre, thirty grains; camphor mixture, six ounces; syrup of saffron, three drachms; mix, and for a dose take two table spoonfuls, mixed with an equal quantity of water, every three hours if necessary.

During the whole course of this complaint, the patient should be confined to bed, and the room kept quiet, and moderately warm. All kinds of animal food and stimulating drinks must be forbidden, and the diet consist of light vegetables, with diluting drinks, as gum or barley-water, &c. After recovery, constant care must be taken to guard against a cold and damp atmosphere, as a relapse is very easily produced.

INFLAMMATION OF THE WINDPIPE.

(*Bronchitis.*)

Inflammation of the windpipe is an affection of very frequent occurrence in cold and changeable climates. It generally commences with lassitude, chilliness, slight cough, and a sense of oppression and tightness about the throat. After the disease has been existing for some time, the cough becomes more troublesome, and is attended with copious expectoration of a whitish frothy matter; the breathing becomes oppressed, and is accom-

panied at times with a peculiar noise ; the patient will complain of a peculiar weight and uneasiness in the stomach, loss of appetite, &c.

The cough in this complaint occurs in fits of considerable violence, being generally most severe in the morning on rising from bed, or passing from a heated apartment to a cold one ; and the same effect is usually produced by inhaling vapour or fine dust. There is seldom much fever attending this complaint, excepting at the commencement of the attack.

Cause.—Inflammation of the windpipe is most generally produced by exposure to a damp and variable atmosphere ; want of sufficient covering about the neck and breast during the winter season ; and sitting in a draught of air when the body is in a perspiration.

Treatment.—At the commencement of an attack of this complaint, bleeding to the extent of ten or fifteen ounces is generally proper ; but after the disease has been of eight or ten days standing, it would not be proper to take blood from the arm. Cups or leeches applied about the neck and throat, will then be more serviceable ; blistering the back of the neck and breast is also of great use.

An emetic of ipecacuanha at the commencement of this complaint is a very important remedy, and should never be neglected, as it usually procures immediate relief of the oppression in the chest, and excites a general perspiration.

After the feverish disposition of the system has been moderated by the above remedies, it will be proper to administer some of the medicines known to have the effect of causing a more free discharge from the lungs. For this, I have given the following mixture with advantage : Take of powdered camphor, sixty grains ; powdered gum arabic, three drachms ; syrup of squills, one ounce ; rub them well together, then gradually add eight ounces of water. One table spoonful to be given every hour or two, after shaking it well.

The bowels must be kept regular through the whole course of the disease, and if the patient becomes very weak, some of the bitter teas are to be given, such as the decoction of gentian or sage.

PLEURISY.

(Pneumonia.)

Inflammation of the pleura, or membrane which surrounds the lungs, is a common occurrence in the winter season. It is occasioned by exposure to a cold and damp atmosphere, as are almost all inflammatory complaints.

Symptoms.—It comes on with an acute pain in the side, which is much increased by making a full inspiration, and is accompanied by flushing in the face, increased heat over the whole body, with an occasional cold, chilly feeling, difficulty of lying on the side affected; together with a cough and nausea, the pulse is hard, strong, and frequent. If blood is drawn, and permitted to stand for a short time, it will exhibit a thick, sizzly, or buffy coat on its surface. If this disease be neglected at its onset, it spreads with great rapidity, and the lungs also become affected. When this takes place, the patient will be likely to cough up blood.

Treatment.—Bleeding in this disease, as in all cases of inflammation in the chest, attended with fever, is the first and most important remedy; and for this purpose, a large vein should be opened in the arm, and the blood permitted to flow without regard to quantity, until a diminution of the pain and oppression in the chest is felt, or the patient faints. I would observe here, that it is always proper to place an individual in the sitting position when having blood taken with the lancet; but more so in this disease, as it is necessary to bleed more extensively, and generally to fainting, which is always a criterion for stopping the blood. If the patient was permitted to be in the lying position during the operation, fainting would not occur so soon, and there would be danger of taking away too much blood. If the action of the pulse and the pain increase again after the first effectual bleeding, it must be employed a second, or even a third time if it appears necessary; but one efficient bleeding is all that is generally required, and it must be recollected that a large quantity of blood taken at once is much more beneficial than taking it frequently in small quantities, and not so injurious to the constitution.

In cases of delicate persons who may be attacked by this disease, it will be impossible to get a sufficient quantity of blood from the arm, before fainting is produced. In a case of this kind, if eight or ten ounces of blood do not give relief, or cannot be obtained, it will be proper to have it taken with cups applied to the seat of pain; and in fact, in all cases where the disease does not yield to general bleeding in two or three days, it will be proper to depend on a cure from cupping, as taking blood from the arm at a late stage of the complaint is injurious.

It will also be proper whilst this course is being pursued, to administer nauseating doses of tartar emetic; four grains of this to be dissolved in one ounce of water, one tea spoonful of which is to be given every fifteen minutes until slight sickness is produced, when it can be given less frequently; but often enough to keep up slight nausea for two or three days.

After the fever has been moderated in some degree by the above remedies, it will be proper to apply a large fly plaster over the side and breast affected, with the view of blistering the part, which will assist very much in removing the pain, and danger from the inflammation spreading.

If the cough should be very troublesome after the patient has been freely bled, and especially if he has a yellowish appearance of the skin, it will be proper to give small quantities of calomel and opium, the fourth of a grain of the former, and half a grain of the latter, articles may be given every three or four hours until the cough abates in some degree.

Purgatives must be given freely at the commencement of the complaint. Epsom salts is the best to begin with, and after it has had the desired effect, the following mixture will answer very well, as it does not act only as a purgative, but at the same time promotes a gentle perspiration, relieves heat, quenches thirst, and tends to lower the pulse: Take of solution of acetate of ammonia, three drachms; camphor mixture, ten drachms; ipecacuanha wine, thirty or forty drops; syrup of tolu, half a drachm; mix for one dose, and repeat it every four hours if necessary.

ASTHMA.

This affection consists in a difficulty of breathing, most generally, at first temporary, and occurring at uncertain periods. At first view, it appears to be a disease of the lungs; but it has been found that at the commencement of the complaint, there is no positive disease of the pulmonary organs; the difficulty denoting deep-seated mischief in the lungs, arising, secondarily and sympathetically, from severe disorder in other important parts. Dr. Heberden alluded to this in his commentaries. "It is observable," he says, "in pulmonary consumption, where the whole lungs are diseased, and where a great part of them has been destroyed, that patients have produced a shortness of breathing upon motion, but not any of the violent fits of suffocation which belong to asthma. While in examining the lungs of asthmatic persons after death, there has sometimes appeared no hurt obvious to the senses which could account for the difficulty with which they had often performed their office." This disease has generally been described by authors under two heads, namely, Spasmodic, or Nervous Asthma, and the Humid, or Habitual Asthma.

Spasmodic Asthma.

Symptoms.—An attack of asthma is usually preceded by languor, flatulency, head-ache, drowsiness, disturbed sleep, and pain in the head. Soon a sense of tightness and stricture is felt across the breast, with distressing straightness of the lungs, and impaired respiration; the difficulty of breathing continues to increase; both inspiration and respiration are performed slowly, and with a wheezing noise; articulation becomes difficult, and is apt to produce a propensity to cough, followed by the most anxious difficulty of breathing; the patient is threatened with immediate suffocation, and is obliged, if he is in the horizontal posture, to rise immediately. The blood-vessels of the face and neck are sometimes turgid, and the skin of the face of a livid hue; at others it is morbidly pale and shrunk. These symptoms continue for a longer or shorter period, when they gradually decline, the fits being generally terminated by a copious expectoration of mucus.

Cause.—The exciting causes are numerous, and among the chief of them we may reckon hereditary predisposition, cold and moist atmosphere, sudden change of temperature, removal from a city to the country, suppression of long accustomed evacuations, &c. But all these causes, as I have already stated, may be exerting their influence on some parts remote from the lungs, and the effect produced in them be mere sympathy. Hence it is of the utmost importance that a physician should trace out the actual seat of the complaint.

Diagnosis.—Asthma may readily be distinguished from any other affection of the chest, by the absence of fever and acute pain.

Treatment.—General blood-letting is a common remedy in the treatment of this disease; but the practice is altogether unscientific, and should not be employed in any case of simple asthma, as it never does more than give temporary relief; and is certain, if often repeated, to cause the fits of suffocation to become protracted, and finally habitual.

The proper plan of proceeding is to administer such remedies as are known to have a relaxing tendency, and do not weaken the nervous system. These are to be given at the time of the difficulty of breathing, merely as palliatives; and during the intervals of the fits, remedies must be used for the purpose of removing the cause.

For the purpose of accomplishing our first intention, an emetic of ipecacuanha must be given at the commencement of the oppressed breathing; this always will give more relief than bleeding, if the constitution has not been undermined by the last mentioned remedy. The Indian tobacco (*Lobelia*) is also a very excellent medicine when given at the commencement of an attack, not only on account of its palliating tendency, but as it has been known to remove the disease permanently. This plant has been used a number of years by physicians of the highest standing, in the treatment of asthma; but unfortunately it has, of late years, fell into the hands of injudicious practitioners, (called Thomsonsians,) who prescribe it in all cases of disease, and under all circumstances, as an emetic, in consequence of which it has lost its character as a remedy in this complaint. For the purpose of

convincing my readers of its efficacy when properly used, and the danger which attends it when administered by that unfortunate class of men alluded to above, I will insert the following extract, taken from Dr. Coxe's American Dispensatory. He observes: "It is probably one of the most powerful vegetable substances with which we are acquainted, and no rational practitioner will have recourse to it but with the greatest precaution. The melancholy consequences resulting from the use of *lobelia inflata*, as administered by the adventurous hands of empirics, have justly excited considerable interest, and furnish alarming examples of its deleterious properties and fatal effects. The dose in which it is said to have been usually prescribed, and frequently with impunity, is a common tea-spoonful of the powdered seeds or leaves, and often repeated. If the medicine does not purge or evacuate powerfully, it frequently destroys the patient, and sometimes in five or six hours."

"Even horses and cattle have been supposed to be killed by eating it accidentally. The specific qualities of this highly active plant promises to be of utility as a remedy, and should be particularly investigated by ingenious and intelligent men, that its rank in the materia medica may be clearly ascertained."

The following highly interesting observations are from the Rev. Dr. M. Cutter: "When I was preparing my botanical paper," says the Doctor, "I had given it (*the lobelia*) only a cursory examination; and having some doubt about its specific character, I suspected it to be a new species. Accidentally ascertaining its emetic power, I inserted it with the specific name, *emetic weed*. By chewing a small part of it, commonly no more than one or two of the capsules, it produces a gentle emetic. If the quantity be a little increased, it operates as an emetic, and then as a cathartic; its effects being much the same as those of the common emetics and cathartics. It has been my misfortune, (the author observes,) to have been asthmatic for about ten years. I have made trial of a great variety of the usual remedies with very little benefit. In several paroxysms I had found immediate relief, more frequently than from any thing else, from the skunk-cabbage." (*Dracontium fetidum*, Linn. *Arum Americanum*, catesby.)

Dr. Drury, of Marblehead, also an asthmatic, had made use of

a tincture of the Indian tobacco, by the advice of a friend, in a severe paroxysm early in the spring. It gave him immediate relief, and he has been entirely free from that complaint since that time. "I had a tincture made of the fresh plant, and took care to have the spirit fully saturated, which, I think, is important. In a paroxysm which, perhaps, was as severe as any I ever experienced, the difficulty extreme, and after it had continued for a considerable time, I took a table spoonful. In three or four minutes my breathing was as free as it ever was, but I felt no nausea at the stomach. In ten minutes I took another spoonful, which occasioned sickness. After ten minutes I took the third, which produced sensible effects upon the coats of the stomach."

This reverend gentleman goes on, and enlarges upon the effects which were produced by the lobelia, and that he was perfectly cured by it. I have administered it in a number of cases with decided advantage, and would advise persons to use it in cases of this complaint, with caution; but in no other, as it cannot be expected to be of more use in common cases of disease, requiring an emetic, than any other article possessing an emetic effect; and so far as I have been able to ascertain, there is at least one in ten who have taken it in the way in which it is administered by injudicious practitioners in this city, destroyed by it.

Dr. Cox (late professor in the University of Pennsylvania) says: "The leaves should be collected in August, while the plant is in blossom, and carefully dried and preserved for use. From ten to twenty grains of the powdered leaves will in general be found a suitable dose as an emetic for an adult, or it may be repeated in smaller quantities. As a pectoral, it may be given in powder or pills alone, or combined with other remedies, repeated in small doses till an evident good result is observable. Of the saturated tincture, twenty, forty, or even sixty drops may be safely given to children of one or two years old, increasing as occasion may require."

Vinegar has been used by several physicians in cases of spasmodic asthma. They say they have found it more decidedly beneficial than any other remedy which they have tried. They administered it in two or three table spoonful doses, every hour, until the difficulty of breathing was removed.

A great number of other remedies have been recommended by writers, but I have found the abovementioned to answer much better than any other for the purpose of removing or shortening a paroxysm. During the intervals of the attacks, remedies must be employed with the view of removing the nervous irritation or depression. For this purpose such means must be used as are known to invigorate the system generally, as tonics, chalybeates, &c. I have used the following pill with success, not only in strengthening the nerves, but in preventing the frequent returns of the paroxysms: Take of sub-carbonate of iron, a drachm; ipecacuanha, twenty grains; extract of gentian, or dog-wood bark, a drachm; calomel, five grains; simple syrup, a sufficient quantity to form a mass; divide into thirty-five pills, two of which may be taken three times a day. It will be proper to apply some irritating application over the region of the spine between the shoulders, as disease in this part is often the cause of the difficulty of breathing attending this complaint. Tartar emetic ointment, or the plasters mentioned on page 132 will be the best.

Habitual Asthma.

The symptoms of this species of the disease are similar in many respects to the former division. The patient is seldom free from the difficulty of breathing, and if he should be so fortunate as to be relieved of it a few days in the mild season of the year, it is sure to return on the least exposure to a cold and damp atmosphere. The paroxysms are never, by any means, so severe as in the former, and are generally accompanied with a copious discharge of tough mucus from the lungs.

Cause.—The cause of habitual asthma is often the effect of improper treatment in the former species, such as too much depletion by bleeding, purging, &c., which has a tendency to break up the energies of the nervous system, and thereby cause the circulation of the blood to be extremely feeble in the remote parts of the body, tending to favour an engorged or congested condition of the lungs to take place on the least exposure to cold.

Treatment.—When an individual finds the paroxysms of an attack of this disease take place more frequently, and continues

longer than formerly, and more especially if he finds that the spells of suffocative breathing do not yield to the remedies formerly employed with advantage, he may be certain that the nature of the disease has changed, and a different plan of treatment must be adopted. In a case of this kind, when the sufferer feels an attack approaching, he should be placed near a large fire, (the chamber heated by a stove will not answer,) and his feet and legs immersed in warm water; he should drink frequently of some mild and slightly stimulating tea, such as sage or linseed, into a pint of which, two or three tea-spoonfuls of the aromatic spirit of ammonia may be put; and if there is much tightness felt about the chest, hot flannels may be placed about the neck and breast. If this treatment should not give relief in three or four hours, a draugh composed of thirty drops of laudanum, with sixty of ether, and an ounce of mint water, may be given; or in place of it, the fourth of a grain of acetate of morphia may be given in a cup of strong coffee, to be repeated every four hours if the paroxysm should continue so long. Several eminent physicians recommend strong coffee to be taken frequently in all stages of this complaint; but I believe it to be injurious; it ought only to be given at the time when the difficulty of breathing is very great, merely as a paliative. If the patient's bowels should be confined, they must be relieved by the exhibition of a laxative clyster; an ounce of epsom salts dissolved in a pint of warm water, to which a table spoonful of starch or linseed meal may be added, will be found to answer very well; or by administering a dose of the following as often as necessity requires: Take of epsom salts, one ounce; mint water, five ounces; tartar emetic, one grain; tincture, or a strong tea made of senna, half an ounce, and then mix. Two or three table spoonfuls may be taken every six hours, or as often as appears necessary; but active purging is invariably to be avoided.

"In relation to bleeding in this disease," says an eminent European surgeon, "it is a too common practice among persons to bleed the patient during a severe asthmatic fit; but unless there be great fulness of habit, with a tendency to inflammation, it should never be resorted to, for it greatly augments the subsequent weakness, without mitigating even the present severity of the disease."

During the intervals of the severest paroxysms, the most valuable medicines are those which have a strengthening tendency, such as teas, or decoctions of gentian, colombo, bone-set, &c., combined with such a diet and regimen as are calculated to invigorate the digestive functions, and the constitution generally.

This species of the disease is frequently observed, in elderly persons, to partake much of the character of consumption, or a slow inflammation of the lungs; being attended with a considerable degree of pain in the chest, feverishness, and hard pulse, especially in the winter and spring. "In a case of this kind," says Dr. Bree, the able author of an approved work on disordered respiration, "Seneca is certainly the most useful medicine that I have tried." The way in which I have employed the Seneca or rattle-snake-root with the greatest success, is to take of Seneca snake-root, one ounce; water, two pints; boil down to a pint, and strain; to this add two drachms of the spirit of ammonia; vinegar of squills, three drachms, and then mix. Three or four table spoonfuls are to be given three times a day in a cup of tea.

Says an eminent European physician, "Blisters are very advisable, but a perpetual issue or seton in the side, arm, or between the shoulders, is of still greater effect, and sometimes proves a powerful remedy. It ought never to be neglected in bad cases, for if it fails to cure, it rarely falls short in relieving."

In speaking of disease in the *cervical* part of the spine or spinal marrow, I stated that it was frequently the cause of difficulty of breathing; (see page 102,) and I would advise the treatment recommended on page 133 to be used in all cases of this complaint. I have had a number of patients who had been labouring under this species of asthma for years, and they have been completely restored by it. Within the last few weeks, a gentleman far advanced in life came to me for relief. His breathing was hurried and very laborious, and he had been for more than twenty years constantly suffering from habitual asthma, and great difficulty in expectorating the tough viscid phlegm, which almost impeded respiration. In a few days after he commenced the treatment recommended in case of disease of the *cervical* part of the spinal marrow, his breathing became perfectly easy, and he was able to expectorate freely, and to walk up stairs without difficulty.

SPITTING BLOOD.

(Hemoptysis.)

Facts and minute observation are wanting on this important subject, and from the character of the disease it will appear evident that it ought to be viewed under several separate and distinct heads; but for fear of perplexing the general reader, and for the sake of brevity, I will, in the first place, merely notice the causes which most generally lead to the complaint; secondly, the symptoms generally preceding the discharge of blood; and thirdly, the treatment which has been found effectual in its removal. I would, however, remark in this place, that the treatment (as will be seen by perusing the subject) is altogether different, when an individual is attacked who has had previous good health, and one who has been weakened from previous disease of any kind.

Causes of Hemorrhage of the Lungs.

In such an organ as the lungs, in a great measure composed of vessels, and liable to so many convulsive emotions from coughing and breathing, it is not wonderful that derangements of circulation should take place, and that a vessel should occasionally give way. This may occur from general plethora, from occasional changes in the general circulation, and in females from suppression of the natural secretions, and it may arise from affections of the lungs themselves. The most obvious of these is any obstruction to the return of the blood from the lungs to the heart, congestion of the lungs from causes which have a tendency to produce a contraction of the blood-vessels in remote parts of the body. Hence arises the acute species of hemorrhage. If this takes place in lungs otherwise sound, it may terminate favourably; but if the lungs be unsound, it will probably terminate in ulceration, and end in consumption.

There is another modification of this disease, differing materially from the former, though assuming the acute or active

form in which the hemorrhage is from the vessels of the windpipe. It appears to be preceded and attended with rawness or tenderness, and a sharp irritating cough, having the character of the catarrhal or bronchial inflammation. The blood is generally smaller in quantity, and mixed with frothy fluid in the early stages, and afterwards with the expectoration common in disease of the lungs, notwithstanding they may be in the most perfect health. Spitting of blood may also take place from a rupture of a vessel in the tonsils, or root of the tongue. This, unlike the foregoing, is not attended with the least cough or difficulty of breathing; the first indication given is the blood pouring out of the mouth, without any effort whatever, causing great alarm on the part of the individual and his friends, when, in fact, there is little or no danger to be apprehended. I have, since I commenced writing on this subject, been sent for in great haste, to see a lady residing thirty miles from the city, who was said to have ruptured a blood-vessel in the lungs. When I arrived, the attending physician was about to apply the active treatment used in a genuine case of hemorrhage. I felt satisfied, however, that it was a case of this character.

There is a third variety of this complaint, differing from the two former modifications, in its not being acute or active in any degree. It appears to arise from the immediate rupture of a vessel, in consequence of disease of its coats, without inflammation or congestion. Patients labouring under this variety of hemorrhage, are generally pale, feeble, and emaciated; the pulse weak and slow. It may arise either from the vessels of the lungs, or from the membranes of the windpipe; and in both cases seems to be connected with tubercular disease. In the former case, therefore, it is very likely to be followed by consumption; in the latter, by bronchitis, in its most unfavourable form.

A fourth modification arises from a vessel giving way from previous ulceration in a case of true consumption. It is known by its being preceded by purulent expectoration. It is often immediately fatal, and at best admits only of palliative treatment.

A rupture of a blood-vessel may occur in the stomach, and cause a discharge of blood. This is however, altogether differ-

ent, both in character and symptoms from the former disease; the blood being thrown up by vomiting, and is usually in much more considerable quantities than when it takes place in the lungs. (See hemorrhage of the stomach.)

Treatment.—Spitting of blood, as I have already stated, may take place either in the sanguine and florid, or in the debilitated and pale. In the former case, it is accompanied with increased vascular action, and the blood is florid and tenaceous; in the latter, it is attended with general laxity or debility, weak vascular action, and the blood is thin and of a diluted red; showing that a different plan of treatment is necessary, and the danger of employing the same remedy in different individuals, as many are in the habit of doing. I feel sorry in having to say, that there are physicians in this city who are in the habit of employing some remedy which they have seen recommended in the books in all cases, without the least regard to circumstances, or the condition of the individual.

In spitting of blood occurring in persons of a sanguine temperament, especially if the discharge is copious, bleeding from the arm is the first and most important remedy that can be employed. From fifteen to thirty ounces ought to be taken at once if the patient does not become sick before that quantity is drawn; after this, nauseating doses of tartar emetic or ipecacuanha must be given in sufficient doses, to keep up a slight degree of sickness at the stomach; the fourth of a grain of the former, or three grains of the latter, given every two hours, will be likely to be sufficient. It will also be proper to administer an occasional purgative. The common Glauber's salts is the best in a case of this kind.

Foxglove (*Digitalis*), is also a medicine of considerable utility in this complaint. It may be given either in doses of ten drops of the tincture every three hours during the first twenty-four hours, and afterwards three or four times during the day and night; or it may be given in substance, two grains of the powdered leaves in the above manner. When spitting of blood is attended with much cough and fever, it is particularly useful, especially in young persons. Nitre has been recommended by some of the most eminent European authors. I have used it with

advantage in several cases attended with pain and fever. It has been given in large doses; a drachm dissolved in cold water has been given three or four times a day. I prefer giving it in doses of twenty or thirty grains, repeated every hour or two, until the urgent symptoms subside, and then at longer intervals. It should not be continued longer than two days at a time.

If the foregoing means fail of success, the super-acetate of lead should be tried. It must be RECOLLECTED, that it is a most powerful astringent, and must be used with caution. Half a grain of the lead, united with one-fourth or half a grain of opium, may be given every six hours until six or eight doses have been taken. Great caution must be observed in preventing constipation of the bowels at the time it is being used, and if it should produce pain in the stomach, castor oil must be given freely.

The above treatment will also be proper in a mild case of hemorrhage in an individual who has enjoyed previous good health, except bleeding from the arm, which is seldom proper when the urgency of the case does not require it; and it must not be resorted to when the constitution of the individual is delicate, or where a constitutional tendency to consumption exists, although the patient be of a florid complexion, and apparently fat at the time of the hemorrhage; for, in such subjects, there is generally a great deal of such irritability, as is injuriously effected by depletion through blood-letting. In these examples it is much more safe in general to trust to the remedies already mentioned with the exception of bleeding from the arm.

The patient, at the time the above remedies are being employed, should be kept as quiet as possible in a sitting position, and the temperature of his room kept moderately cool; if the weather should be oppressively warm, fanning the patient will be serviceable. His food must consist of the most simple articles of vegetables, as rice, barley, sago, gum-water, &c.

When spitting of blood occurs in delicate persons, such means must be resorted to which have the power of stopping the bleeding, without further debilitating the constitution. In cases of this kind, it will be proper to have recourse to nitre, ipecacuanha, and Glauber's salts. If, however, the flow of blood from the lungs be considerable, the super-acetate of lead should be resorted to

immediately, and given as directed above. If the patient becomes exceedingly weak in a short time, as is frequently the case, stimulants, such as camphor, or the spirits of hartshorn must be given; a table spoonful of the former, prepared, (see camphor mixture, page 183,) may be given every hour or two, or fifteen drops of the latter, in a small quantity of water, every hour until the sufferer appears somewhat recovered. Should the cough be very troublesome, the solution of acetate of morphia must be given; one grain of this dissolved in one ounce of water, a tea-spoonful of which may be given every hour until the cough moderates, or the patient feels inclined to sleep. In all cases of hemoptysis, in which the strength of the patient is exhausted, the use of strengthening medicines is proper and necessary, and either the infusions of the barks or bitter roots, as gentian, &c., or diluted sulphuric acid should be given without delay. A tumbler full of cold water, made pleasantly sour with a few drops of this acid, should be taken as a common drink; a wine-glassful every hour or two will generally answer. The use of acidulous fruits, as oranges, lemons, &c., and vegetable acids, are proper. The diet must be nourishing and very mild, consisting of milk, eggs, and the most digestible kinds of animal food, but no spirituous liquor whatever can be allowed.

Should the disease not yield to the above remedies in a few weeks, or if it frequently returns after it has been checked, it will be proper to investigate the nature and cause of the complaint more fully, as it is very often produced by affections in a remote part of the body. (See disease of the spinal marrow, page 102, or suppression of the natural secretions in females, page 172.)

After the hemorrhage has ceased altogether, the individual must resort to means to prevent its recurrence in future. For this purpose, those who are of a full habit should constantly observe a mild, and as much as possible, a vegetable diet, and moderate exercise, with an occasional saline aperient. The following mixture will answer very well: Take of epsom and Glauber's salts, of each half an ounce; mint water, five ounces and a half; antimony, the fourth of a grain; tincture of senna, half an ounce, and mix them. Three or four table spoonfuls of this may

be taken every three or four hours, until it produces a purgative effect. Those who are weakly and delicate, must endeavour to strengthen the chest, and constitution at large, by a constant but cautious use of the tonics recommended above, with friction, daily exercise when the weather is mild, proportioned to their strength.

A further account of diseases often mistaken for Consumption.

To the various affections which have been described as being often mistaken for consumption, I think it proper to add some remarkable causes which may produce similar symptoms; they are not, however, of so frequent occurrence as to require a particular description.

In young women, especially of the higher ranks, a condition of the constitution is often met with, which is very apt to excite alarm, of a tendency to consumption, especially if the sufferer ever has had a near relative die of the disease; and if a physician who is not thoroughly acquainted with his profession, should be consulted, he would be very likely to treat the case as consumption, and thereby produce it. The symptoms in this condition of the system, are—the patient is found pale, sallow, listless, and inactive, with bad appetite, disturbed sleep, and a small, frequent pulse. There is frequently nausea, especially after eating, and a feeling of oppression or exhaustion across the stomach; sometimes a more fixed uneasiness in one side, about the margin of the ribs, increased by cough and by a full inspiration, together with a short dry cough, and the breathing becomes quick and uneasy upon exertion, as going up stairs, or an ascent; there is also a feeling of coldness, sometimes alternating with flushes of heat. The bowels are generally costive, sometimes obstinate; the natural secretions are often deranged, but this state of the body is not of the nature of the disease produced by a retention of the natural secretions.

It is treated successfully by country air, or gentle exercise, and a combination of tonics with gentle laxatives. I have used the sulphate of iron combined with aloes, taken three times a day, in doses of two grains of the former with as much aloes as is found

necessary to keep the bowels regular. The abdomen is sometimes enlarged, and the affection seems to be connected, in a great measure, with derangement of the muscular action of the intestinal canal, especially the colon. It is not to be removed by strong purgatives, but by the combination of gentle laxatives with tonics.

Dr. De Hane says: "I have never observed a more severe, obstinate, and untractable cough, than that which affected a young woman, and having resisted every remedy, ceased after the expulsion of a callous substance from the uterus." A respectable European writer relates a fatal case of violent cough, with purulent expectoration, in which the only diseased appearance was in the frontal and occipital sinews, which were full of pus. M. Sauvage mentions a case of obstinate cough, arising from irritation of the auditory passages,⁴ especially the Eustachean tube. The case of a person related by Mr. Howship, had violent cough, with copious expectoration, and frequent spitting of blood; constant pain in the right side of the chest, and extreme emaciation. After four months, when his case was considered as hopeless, he brought up, in a violent fit of coughing, a small nail. Eleven or twelve years have elapsed since this event, during which he has had no symptom of consumption.

Mr. Halman mentions a man who had severe cough, purulent expectoration mixed with blood, hectic fever, profuse night sweats, and diarrhœa. After these symptoms had continued till he was reduced to a state resembling the last stage of consumption, he one day spit up a pint of blood, and soon after coughed up a piece of bone, weighing six grains. He soon recovered.

Every person is, I presume, familiar with the term *NERVOUS COUGH*. It is, in general, employed by physicians to express any chronic cough that is not consumptive. I have had some hundreds of patients who were labouring under this species of cough for years, and had been supposed by some of our most eminent physicians to be in the last stage of consumption; and some of the sufferers had even been told that they could not live two

* The opening into the ear.

weeks; notwithstanding, they have recovered on removing the nervous irritation. For particulars relating to the treatment of this species of cough, see page 133.

CONSUMPTION OF THE LUNGS.

Says a late European surgeon, when speaking of the nature, symptoms, and treatment of this desperate malady: "The whole is at present in the most rude and imperfect state, and that most important part of it, the diagnosis,* is entirely in its infancy. But it is one of the most interesting subjects that can occupy the attention of the British practitioner, and his utmost exertions will be amply rewarded, if any degree of perfection can be introduced into the pathology† of consumption. At present, it is certainly vague and unsatisfactory in the greatest degree, while, in the British Islands alone, the annual mortality from consumptive diseases, is from fifty-five to sixty thousand."

This being the unimproved condition of science relating to the nature, cause, and treatment of this complaint in Great Britain, my readers will readily perceive how it happens that the disease is permitted to continue its ravages in the middle and northern states of America, when they are informed that the physicians of the United States are indebted to the European surgeons for all the information they possess relative to it; and, I must add, (with shame) for almost all the information they possess relating to the endemical affections to which we are subject. Our public practitioners and teachers to whom we too often look for information, seldom investigate any subject, or let their names appear in print, unless for the purpose of puffing, and recommending some favourite bleeder or tooth-drawer.

* Distinguishing consumption from diseases resembling it.

† The nature of disease.

The only original idea that has been published during the last eight years in this city, by those men employed in our public institutions relating to the cause of disease, was an article in one of the last quarterly reports, concerning an old pair of shoes being the cause or the commencement of a certain endemical affection. It appears from the physician's statement, that the shoes had been worn by a diseased individual two years ago; since that time they had been out of use, and I suppose registered, as it would otherwise have been very difficult to distinguish them from other shoes after such a length of time, and there being generally from eight to nine hundred persons confined in the institution. Be this as it may, it appears they were given to an unfortunate individual who wore them, and he was, in a short time, attacked with the same disease which had destroyed their former occupant. These shoes were supposed by the author of the article, to have contained the contagion or infection of the disease, which their former possessor had been afflicted with, and in this way produced the complaint in the patient who wore them last. But I am inclined to believe that the shoes had got too much seasoned, and perhaps did not protect the unfortunate man sufficiently from the inclemency of the weather, and that the disease was produced in this way.

I have not made these remarks with the intention of casting opprobrium on the profession; by no means. I feel too sensibly impressed with the difficulties which attend the investigation of subjects of this nature; but feel anxious to excite the attention of those who are favourably situated, to use every effort in their power to ascertain the real cause of consumption.

My readers will not expect me to say anything relating to the pathology of the disease in this work, especially when they are informed that it would require a volume as large as this to contain the most abridged account that could be in the least satisfactory. I will, therefore, merely make a few practical remarks relative to the cause and symptoms, together with the treatment which I have found most beneficial in cases that had been supposed by the most respectable authorities, to be consumption of the lungs.

Symptoms.

Cough, difficulty of breathing, spitting of blood or mucus, hectic fever, and emaciation are said to be symptoms of consumption of the lungs; but I have made it appear that all these symptoms and a great many others, were produced by causes altogether different from the disease now under consideration. The only proper plan, therefore, of forming a correct judgment, is by taking an extensive view of the symptoms. I must remark in this place, that many physicians are too hasty in forming an opinion, and they do not take a sufficiently extensive view of the case, and often do much injury by causing their patients to believe that they are labouring under consumption, when it is not existing. I could produce hundreds of instances of this kind; and within the last few days I was summoned to attend in a case, the circumstances of which I will relate, as they may serve the purpose of impressing the nature of the symptoms on the mind of the reader. They are briefly the following: I was requested some two months since, by one of our most worthy citizens, to attend a young woman residing with his family. She had been in delicate health about two years, occasioned by disease of the spine and spinal marrow. After using remedies some time, her health appeared to be quite restored; but she was unfortunately attacked with congestive fever, and became alarmingly ill, on account of which I was again requested to prescribe for her, and after some days attendance, had the satisfaction of finding all danger removed. I informed the family that I thought her out of danger, and that owing to the peculiar condition of her constitution, she would recover strength very slowly, and did not think it necessary to continue my visits, but would order some strengthening medicine. In six or eight days after this, the physician who had attended in the family during the last twenty-four years, called and was requested to see the patient. After making some inquiries, he pronounced her to be in the most critical condition; but being a man of the most correct principles, and far superior to most of our city doctors in judgment, he would not prescribe for her until I was requested to meet him in consultation. On my

arrival he informed me, that he had seen the young lady that morning, and thought her extremely ill. I told him that I had not visited her during the last five or six days, and thought her out of all danger the last time I saw her. We were shown to her apartment, and I was very agreeably surprised to find her much better than when I saw her last. The doctor examined her very closely, applied his ear to her chest, inquired about her short breathing, scrutinized her countenance, and finally came to the conclusion that her lungs were diseased, and that she had the hectic fever. I related the nature of the case, and informed him of her former symptoms, without being able to convince him to the contrary. He, however, agreed to let her continue the remedies which I had recommended a few days longer, when she recovered without further interference.

If this young woman had, in her weak condition, been made to believe that she was in the last stage of consumption, and the means employed which are generally used in cases of the kind, she would undoubtedly have sunk under it.

The earliest symptoms of consumption are often insidious and obscure. The individual is, perhaps, sensible of an unusual languor, and breathes with less freedom than formerly, so that his respirations are shorter and increased in number. He coughs occasionally, but does not complain of its being troublesome, and rarely expectorates at the same time; yet if he makes a deep inspiration, he is sensible of some degree of uneasiness in a particular part of the chest. These symptoms gradually increase, and at length the pulse is found quicker than usual, particularly towards evening; a more than ordinary perspiration takes place in the course of the night, and if the sleep be not disturbed by coughing, a considerable fit of it takes place in the morning, and the patient feels relaxed and enfeebled. This may be said to form the first stage of the disease.

The cough increases in frequency, and from being dry, is accompanied with a purulent mucus, varying according to the peculiar modifications of the disease, from a watery whey-like consistency, occasionally tinged with blood, to an expectoration of nearly genuine pus; and the malady may now be considered as decidedly established. The fluid spit may be livid, blackish,

or of a yellow colour; fetid or without smell, and in some cases very scanty. The uneasiness in the chest, at first perceived only on making a deep inspiration, is now permanent, and attended with a sense of weight; the hectic fever has assumed its full character, and the patient can lie with comfort only on one side. The strength at this time also fails; the pulse varies from about a hundred to a hundred and twenty or thirty; the teeth have a transparent whiteness; the extremities appear withered or shrunk, excepting at the joints, which appear prominent; the nails of the fingers for want of support, bend, and become painful; the nose is sharp; the cheeks frequently red, but often pale; the eyes sunk but much brighter than formerly, and the whole frame appears contracted.

The third stage is melancholy and distressing. It commences frequently with a depressing and colliquative looseness of the bowels. The voice becomes hoarse, the mouth and throat sore, and frequently ulcerated. Swelling of the lower extremities about this time often takes place, and become cold.

Cause.

It is almost universally believed that a cold and variable climate is the principal cause of consumption, and individuals, of course, attempt to avoid as much as possible an influence which is supposed to be so productive of disease. For this purpose, every precaution has, of late years, been practised, with the view of excluding the chilling blast from our dwellings. Notwithstanding, the disease seems more than ever to be committing its heart-rending ravages in our city; and we find that it is not that class of persons who are destitute of the comforts of life, or that are most exposed to sudden atmospheric vicissitudes which are most frequently attacked; on the contrary, it is that class who are able to maintain a degree of temperature in every part of their dwellings, during the cold season of the year, equal to mid summer. These facts, I presume, will appear sufficiently evident to every person.

This opinion and practice is so generally entertained, and so unhesitatingly adopted, that I think it unnecessary to quote any

authority to confirm my statement. In doubting its accuracy, I do not mean to question that cold has not a great and increasing influence in the production of the disease; but I object to the narrowness, the exclusiveness of the assertion, and always have considered it of much more importance to be acquainted with the manner in which an agent exerts its influence, than merely to know that it does produce the effect. I do not believe that a cold atmosphere is of itself sufficient to produce any species of the disease, and much less the most common variety, known by the term *Tubercular Consumption*; there being (according to my experience,) always an unhealthy action existing in the lungs previous to the application of cold. In other words, cold cannot produce disease in the lungs, so long as they are in a healthy condition. I should suppose this fact would appear sufficiently evident to every person of common understanding, as they must know that a great number of the inhabitants of the Northern states are equally exposed to the influence of cold, yet we do not find them all afflicted with disease of the lungs. I would call the reader's attention particularly to this subject, as I think it much more safe and easy to avoid the cause and prevent the occurrence of the malady, than to remove it after it has taken effect; and notwithstanding I am exposing myself to the merciless sneer of criticism, I am not afraid to say, that if individuals were as cautious to avoid causes which have a tendency to derange their GENERAL HEALTH, as they are to avoid the influence of cold, there would be much less danger (if any) of tubercular consumption. For the purpose of showing that I do not stand alone in this opinion, I will make an extract from the London Medical and Physical Journal, relating to M. Broussais' opinion of the cause of this disease.

“M. Broussais has shown that this affection is the almost inevitable consequence of prolonged irritation of the mucus membranes of the lungs in lymphatic subjects; and he adduces the most powerful evidence to show that this is its almost exclusive origin. During the twelve years that he accompanied the French army through the principal countries on the continent of Europe, he had frequent occasions to witness the confirmation of the above statement, and, at the same time, of determining the influence of a cold and moist climate in its production.”

The same may be said of consumption of the lungs unattended with tubercles. It is not produced by cold alone, but when the lungs are in a state of irritation or inflammation from any cause, and cold air is brought in contact with them, it may produce the complaint. But I may be asked, how it has happened that I have attributed almost all the diseases to which the organs of the chest are liable, to a cold and damp atmosphere? In answer to this question, I appeal to my reader's daily observation. How universally, for six months in the year, do we meet a shivering crowd passing along our streets with flimsy and transparent dresses, and one often less comfortable in the evening than in the morning. This fashionable folly is carried to a much greater extent in this city than in the more southern latitudes. And is there any propriety in our so unscrupulously taxing our climate with the mischief, while we do not use the means of preventing the exposure to cold, which are used by those who are much less under its influence? It is common for the profession to accuse the obstinacy of their patients, and the tyranny of fashion; but the blame rests not with our patients, nor with the fashions,—it rests with ourselves. I appeal to every respectable man in practice. Does he ever find the propriety of his advice disputed? Does it ever meet with a refusal when properly bestowed? The mischief lies in this, there is no uniformity of opinion among medical men. One is ever dwelling on the propriety of making ourselves and children hardy by unreasonable exposure to cold and dampness; while the other is advocating the opposite extreme, of keeping them in an apartment heated to such a degree, that warm clothing cannot be worn, and when occasion requires it, walk out, perhaps in a cold damp evening, without any additional covering. And when our patients and the public see such diversity of opinion, who can wonder that persons expose themselves improperly to the cold? Let medical men act rationally, and recommend warm and dry clothing, a pure and cold atmosphere, and thousands will be saved from those affections of the chest, which I have ascribed to exposure to a cold and variable climate.

As a proof of this, I adduce the testimony afforded by an eminent European surgeon. The Dutch, it is well known, are more

exempt from consumption, or any other disease of the chest, than the English or Americans, notwithstanding their country is both cold and damp; but they use warm clothing. Says this surgeon, "The Dutch are forcibly struck with the coughs so universally prevalent in England at every season of the year. At church, and at the theatre, devotion and pleasure is interrupted, while in the large assembly in Holland, instances of a similar kind are hardly known."

Some authors have described a species of this disease, which they term dyspeptic consumption. I have thought it advisable to make the divisions of this complaint as few as possible, in order to prevent confusion. I have noticed it under the head of dyspepsia or indigestion, from which complaint it originates. They have also described a number of causes which they suppose gave origin to the disease; among these is hereditary predisposition. They are not worthy of notice, excepting the latter, and it is owing more to a mode of living which is inherited, than to any hereditary peculiarity of constitution. For the first or predisposing cause, see pages 245 and 102. Says M. Broussais, in speaking of the nature of this disease: "There are many persons who are remarkable for the little energy with which the circulation is affected in them: these are all disposed to irritation of the lymphatic vessels and ganglions, and to those degeneracies of structure which have been termed organic lesions; whilst the same cause to which they owe their origin, will, in persons whose circulation is carried on with great vigour, give rise to violent phlegmasiæ."

Treatment.

In speaking of the cause of consumption, I attempted to show that art might do much in preventing the disease; and I would here attempt to convince my readers that my opinion is, that art might do much more than what it does in removing the complaint, was its nature properly investigated. Says one of the most eminent surgeons of Great Britain: "Plain facts, almost without reasoning, declare, that the mere mention of consumption ought not to fill our minds with dread. Nature alone frequently

cures : why may not nature and art do so too ?” My object in describing the treatment of this complicated affection, is not for the purpose of having individuals apply the remedies which I have recommended themselves ; by no means. I would particularly advise those who are so unfortunate as to be threatened with it, to call in the aid of a physician whom they know to have a thorough knowledge of the nature of disease and medicine ; but unfortunately, there is a class of physicians who unhesitatingly pronounce every disease accompanied with cough, a case of consumption, and they generally consider it incurable. Nothing, therefore, can be expected from this class of doctors, but such remedies as have a palliating tendency, or perhaps prescribed merely for the purpose of amusing the patient, and preventing his seeking aid from more advantageous sources. Others are abandoned to their fate, and for want of advice, apply to those abominable and destructive quack remedies, advertised in our daily prints by impostors for the cure of this and other complaints. To such I would most affectionately recommend the following remedies, as I have reason to believe them, from experience in practice, to be the most safe which they can employ, and if used agreeably to directions, will in many instances assist nature in removing the diseased action of the lungs, and finally make a perfect cure.

The oldest, and from what I have been able to learn, the most successful treatment of consumption, has been upon the strengthening plan. Hippocrates* seems to have placed his chief reliance on exercise, in relation to which he directs, that it should be gradually increased to the extent of walking ten or fifteen miles a day. Aretæus and Celsus (two ancient physicians) advise a similar course of treatment, with very particular directions relating to diet. Celsus also speaks much in favour of walking, friction and bathing. Galen appears also to have placed much reliance on bathing, and gives directions for using it in the different modifications of the disease, especially to the different grades of hectic fever. During the long period in which these opinions governed the medical schools, the same mode of treatment

* Usually called the father of Physic, being the first who instituted the science of Medicine, about 460 years before the time of our Saviour.

was prescribed; and at a more advanced age, when the nature of the complaint became better understood, there were added to the list of remedies such articles as were supposed to have a tendency to cleanse and heal the ulcers of the lungs. Of these, the most powerful were found to be preparations of sulphur, balsam, myrrh, sarsaparilla, cinchona, preparations of mercury and antimony, chalybeate waters, &c. During the period to which this account refers, various systems had been tried, but with indifferent success. Hippocrates' being found the most beneficial, prevailed to about the middle of the seventeenth century; and even after this, the illustrious Sydenham did not hesitate to recommend exercise on horseback and otherwise, providing the patient had his linen well dried before he put it on.

About the commencement of the eighteenth century, the plan of treatment appears to have been changed from the strengthening to the debilitating system, which is now practised by some of our city physicians, but with less success than appears to have attended the former plan; and in fact it cannot be expected, that any one particular system could be appropriated to the various symptoms attending consumption.

There are cases of the disease accompanied with symptoms which do appear to call for the antiphlogistic, or debilitating treatment to the utmost. But in proportion as we go on depleting in such cases, the patient becomes enfeebled, whilst the irritation and fever become more and more obstinate; and if this practice was carried to such an extent as to produce death, the inflammatory symptoms would not yield. If we persist in its use, the patient becomes emaciated, sinks with astonishing rapidity, and arrives at a state of fatal debility, without the inflammatory symptoms having been dissipated. It is advisable, therefore, as soon as we perceive this disposition in the case, to refrain from further depletion, as the period of the disease in which it would have been possible to remove the irritation suddenly is past, and the action of the lungs will be for a long time disturbed. The strength of the patient, in a case of this kind, must be carefully guarded; and notwithstanding we can gain nothing by depressing it, we must be very cautious in the administration of stimulants and tonics. On the other hand, there are cases which would ap-

pear to require strengthening remedies, but we find when they are administered in an incautious manner, they aggravate the symptoms, and in place of strengthening the patient, produce greater debility. I know of no agent that is destroying life with such certainty, as those tonic mixtures advertised for the cure of coughs, colds, consumption, &c., by quacks and injudicious practitioners. Opium is generally one of the ingredients they are composed of, and it has the effect of destroying the unfortunate sufferer's feelings, and preventing the cough to such a degree, that the irritating matter in the lungs is not thrown off until it produces ulceration. The other coarse ingredients often swell the stomach, or produce an unnatural appetite, which has the tendency of causing still greater irritation of the body generally. I feel satisfied, from what I have seen, that one half of the cases of consumption in this city, are produced by these articles.

The most appropriate remedies in cases unattended with fever, but accompanied with violent cough, and expectoration of a thin, offensive, purulent mucus, general soreness in the chest, and transitory pains, shifting from side to side, will be turpentine, copavia balsam, myrrh, iceland moss, &c. The oil of turpentine may be administered in doses of thirty drops two or three times a day, mixed with mucilage of gum arabic, or yolk of an egg and water; or the copavia balsam may be taken alone on sugar to the extent of thirty or forty drops three times a day, and gradually increased to fifty or sixty. If it produces sickness, it may be taken in a little cinnamon or mint water; should it act as a purgative, a few drops of laudanum may be added to each dose. A very excellent and agreeable mixture can be made by mixing four drachms of copavia balsam, two of tolu balsam, three of the mucilage of gum arabic, four ounces of pure honey, one drachm of tincture of opium, and four drachms of syrup of tolu; mix, and take a tea-spoonful morning, noon, and evening.

The inhalation of tar-fumes is also a very good remedy in cases accompanied with the above symptoms. The tar employed should be mixed with sub-carbonate of potash, in the proportion of one pound of the former to half an ounce of the latter. The tar thus prepared, is to be placed in a suitable vessel over a lamp, and kept slowly boiling in the patient's chamber night and day.

The vessel ought to be cleansed every twenty-four hours, as the tar may become decomposed and burn, producing a smoke which would increase the cough and oppression on the chest. This remedy, however, ought not to be employed if the skin is hot and dry, and the expectoration scanty, or mixed in the slightest degree with blood. Physicians generally recommend the iceland moss. I have employed it with the happiest results in combination with sarsaparilla; one ounce of the former and two of the latter, should be boiled in three quarts of water, until it is reduced one half; two or three wine-glassfuls of this should be taken three times a day. I know of no remedy which has so great a tendency in subduing the fever attending this disease.

In cases of the disease attended with spitting of blood, fixed pain in the breast, constant difficulty of breathing, the cough violent and attended with little or no expectoration, excepting the blood, and the patient cannot lie with ease only on one side, the most appropriate plan of treatment is, to administer nauseating doses of ipecacuanha, digitalis, camphor, and in some instances, small quantities of blood may be taken with cups. If the symptoms in a patient of a sanguine habit, and in the prime of life, are of such a nature as to require immediate relief, blood may be taken with cups or leeches from the breast, side, or spine, to the amount of four or six ounces; and OCCASIONALLY, it may be proper to repeat it to the third or fourth time. But abstracting blood is seldom advisable in consumption, and it is generally better to trust, even in the most severe cases, to other remedies, as bleeding can be expected to give but temporary relief, and has the tendency of producing greater debility, a circumstance which should be prevented as much as possible, on account of the danger of hectic fever. We can generally trust with as much confidence and greater safety to nauseating, astringent, and laxative remedies, to lower excessive vascular action, to check hemorrhage, remove pain, &c.

For the purpose of checking hemorrhage, I have administered four or five grains of ipecacuanha three or four times a day, with the happiest results.

In cases attended with much debility and night sweats, the acids will be more advantageous, as they are known to possess astringent, refrigerating, and strengthening qualities.

Dr. Roberts, of London, has used them with success. He says, "Persons far gone in consumption have been known to recover from merely subsisting alone on lemon juice." Dr. Good justly remarks, that acids diminish action generally, check night sweats, restrain spitting of blood, and retard the pulse. But I do not recommend their use in cases unaccompanied with profuse sweating and spitting of blood. The way in which I have employed them, has been to take one drachm of nitric and two of muriatic acid, and add to them four ounces of water, one tea-spoonful of which is to be added to half a pint of sage tea for one draught; this may be repeated three or four times a day.

The foxglove (*digitalis*.) has, for a number of years, been a popular remedy with some physicians for the cure of consumption, and it has unquestionably been of use. I am not aware that any of its advocates have distinctly pointed out the kind of cases in which it is most beneficial. From its sedative power, I should suppose it best, if not exclusively adapted to cases accompanied with the above symptoms; and there is no doubt in my mind but it is injurious in cases unattended with those symptoms. The dose of the tincture of foxglove is five or six drops, in the commencement, thrice a day, which may be gradually increased to ten or twelve. When the stomach and head are disordered by a small dose, a little lemon juice will generally remove the sickness and vertigo, and enable the patient to take a full dose without inconvenience.

Should constipation of the bowels attend a case accompanied with the above symptoms, an occasional dose of epsom salts will be proper. If on the contrary, there is looseness of the bowels, a grain or two of the acetate of lead in combination with two grains of ipecacuanha, may be given as often as occasion requires.

In a late stage of the disease, slightly stimulating and tonic remedies, such as myrrh and gentian, will be proper. Dr. Percival considers myrrh to be the most useful remedy which modern practice has adopted in consumption; and Dr. Duncan, another European surgeon, speaks highly of it when given in cases accompanied with the above symptoms. Twenty or thirty grains of powdered myrrh may be given twice a day, combined with six grains of nitrate of potash, or with ten grains of cream of tartar.

The diet in cases attended with the above symptoms, ought to be very mild, and in the commencement sometimes spare, as there is generally a considerable degree of increased vascular action, with a florid complexion, and the food should consist of milk and farinaceous decoctions, as barley water, sage, &c. The patient must also be kept quiet in a warm apartment.

When the complaint is attended with a short tickling cough, accompanied with an excretion of a watery whey-like appearance, little or no pain in the chest, early loss of flesh and strength, difficulty of breathing felt only upon motion of the body, or any considerable exertion, constant fever and quick pulse, and obscure hectic symptoms, the most appropriate remedies will be such as are calculated to invigorate the constitution, as preparations of steel combined with myrrh, gentian, colombo, &c. A pure and dry atmosphere, nutritious diet, and gentle exercise, are also of the greatest importance. The most approved form of administering steel and myrrh, especially in cases attended with much debility and night sweats, is to take of myrrh, in powder, one drachm; sub-carbonate of potash, twenty-five grains; rose water, seven ounces; sulphate of iron, a scruple; spirit of nutmeg, one drachm; white sugar, four drachms; mix, and take three or four table-spoonfuls thrice a day. If, however, there is much fever and dry skin attending the disease, it will be best to commence with a decoction of sarsaparilla: one ounce of this root should be boiled in a quart of water until it is reduced one half, when it is to be strained and taken at different times during the day. I am not acquainted with any article better calculated to subdue the fever attending this complaint. If there is a yellowish or bilious appearance of the countenance, two or three grains of ipecacuanha, in combination with the fourth of a grain of calomel, may be given every night until the bilious appearance is removed. Should constipation of the bowels be present, and if the patient is not much reduced, an occasional dose of epsom salts may be given. If, however, the patient is debilitated, aloes, rhubarb, and extract of butter-nut will be the most proper to be given as occasion requires.

Particular symptoms in every stage and variety of this disease require palliatives, as pain in the chest, cough, &c. For

these, certain remedies are generally applicable, such as blistering plasters, issues, and friction with tartar emetic ointment. Producing a large blister on the chest of a patient who is not much debilitated, is often attended with the happiest results. In cases of delicate females, I have used the following with more benefit: Take of hard soap, one ounce; lead plaster, two drachms; muriate of ammonia, in powder, half a drachm; mix, and make a plaster by spreading it on leather; apply it to the chest immediately, and renew it every twenty-four hours.

When the cough is very troublesome, the following mixture will be the best: Take of extract of hemlock, and extract of henbane, each one grain; mucilage of gum arabic, two drachms; rub these well together, then add acetate liquor of ammonia, and pure water, of each half an ounce; to be taken at once, and repeated every hour if necessary.

To check the profuse and exhausting night sweats and diarrhœa which occur in the advanced period of the disease, I have prescribed the ACETATE OF LEAD with advantage. Three or four grains combined with half a grain of opium, may be taken in the evening.

The diet should be nutritious, particularly in the latter period of the disease. A certain quantity of the milder kinds of animal food, and even a little porter when the strength is much reduced, are proper, if they are found not to increase the fever. The object here is to nourish without stimulating, and all kinds of milk with fresh eggs are advisable. I will remark in this place, that coffee, in all stages of consumption, is injurious, and ought not to be allowed on any account. Black or green tea, on the contrary, is beneficial, on account of its being possessed of an astringent nature.

All consumptive persons require a mild and agreeable atmosphere, and the sooner this is obtained, the greater will be the probability of success. Medical men, however, differ respecting the best place for phthisical patients to resort to. Particular places in Italy, Madeira, Lisbon, and the South of France, have been recommended by many, while others object to them. Among all the contrariety of opinions, it is certain that consumption is frequent in each of these climates; that in the latter stages

a change to either of them generally accelerates rather than retards the fatal termination; that the duration of the disease in Italy seldom exceeds three or four months; and that the accommodations in all the above places are unusually bad, is admitted. The physicians of Italy acknowledge that in a hundred deaths in that country, there are twenty-five by pulmonary consumption. The distinguished M. Baley, whose authority cannot be doubted, asserts, that of five hundred who died in the Persian Hospital, one hundred died of phthisis, and of the other four hundred, at least fifty were complicated with that disease.

Judging from the information afforded by different authors, and from what I have been told by individuals who have visited those popular places of resort in Europe, I feel authorized in saying, that patients labouring under the disease in the United States, would be but little benefited by visiting them. In fact, I believe the only benefit that is obtained by a change of climate, is from the exertion which an individual is obliged to make in travelling from one country to the other. Was it a warm and agreeable temperature that is beneficial, it could be obtained with a much greater degree of certainty in the Southern regions of our own country, where the inhabitants possess the means of comfort which a patient afflicted with this disease requires. I have known a number of invalids who were supposed, by the best authorities, to be labouring under consumption of the lungs, to be restored to health by travelling South in autumn, and spending the winter months in Florida, South Carolina and Georgia; but I attribute their recovery more to the healthy action which was produced in their systems by travelling and exercising in the open air, than to the warm climate. We can easily satisfy ourselves of the beneficial effects resulting from exertion in the open air, if we will take a walk through our markets in this city, where we can see individuals who appear to be in the last stage of the disease; inquire of them the length of time they have been afflicted, and you will be informed by some of them, that the symptoms which now present themselves have been of eight or ten years standing, notwithstanding they have been exposed to the vicissitudes of the atmosphere in the greatest degree, perhaps by sleeping in their wagons with no other covering than a wet blanket. Select one

of those persons, and one who appears to be in the same condition from the disease, and who has been shut up in his warm apartment two or three months; make a memorandum of their names and residences; after six months call and inquire for them, and you will be likely to find the man who has been exposing himself, still at his employment; but the one who has been confined, and not permitted to breathe the cool and pure air, has long since been consigned to his grave. My object in making these remarks is not for the purpose of advising my readers to expose themselves to the inclement weather; by no means. I altogether object to persons having the least symptoms of consumption exposing themselves in the least to a wet and cold atmosphere; but I must confess, that I believe too much confinement in a close and warm apartment is equally injurious. The best plan of procedure, when a person is threatened with the disease, is to use every means to produce a healthy action in the system; and for this purpose he ought either to walk or ride out every fine afternoon during the winter season, if his strength will permit it. I could adduce evidence from the most respectable sources, to establish the importance of invalids from this affection, taking exercise in the open air; but think it unnecessary, as my readers in this city must be aware of the fatal effects attending the confining system of practice. Sydenham considered exercise on horse-back not only proper in slight indispositions, accompanied with frequent cough and emaciation, but even in confirmed consumption, wherein the symptoms attending the last stage of the disease has supervened. Every experienced physician must know, that exercise, and particularly constant travelling, has a considerable and very sensible effect in restraining inordinate secretions from any of the organs of the body. It ought to be observed, however, that riding on horse-back in young persons of a plethoric habit and high complexion, must be resorted to with caution, as it might otherwise tend to occasion or increase the symptoms of inflammation in the lungs.

Cases of Consumption with the remedies employed.

Case 1.—I was requested to visit a young lady on the first of November, 1838. She was of a family which had suffered from consumption, and had been seized about the age of fifteen, with cough, pain in the left breast, and other symptoms, which were considered by the attending physician as indicating the commencement of phthisis. An elder sister, whose complaint began in the same manner, had recently died of consumption in the ordinary form, which had the tendency of causing her and her friends to be of the opinion of their physician, who insisted on having the same course of treatment employed that had been used by the deceased sister, such as small bleedings, often repeated with cups and leeches, low diet, occasional doses of salts, constant confinement in a chamber heated to a high degree, and for the purpose of easing the cough and procuring sleep, opium had been given. After this treatment had been employed for some time, the young lady became much worse, on account of which her friends were persuaded to request their medical attendant to call in some physician in consultation. He informed them that it would be useless expense, as nothing could be done, unless they would send her to a warm climate, (a measure often insisted on in this city when a consultation is proposed.) The friends of the patient insisted that it was not in their power to send her from home, and if there was anything to be gained by a warm climate, they had the means of making her chamber as warm as the climate of Italy, or any other country; but they had not seen any benefit arise from it in the treatment of the patient's sister. The doctor finally consented to have one of his friends, a physician of high standing, sent for. On his arrival, he pronounced it a genuine case of tubercular consumption, and if it was not convenient for them to send her to the South of France, they must adhere strictly to preventing the least change of atmosphere to take place in her chamber, &c. A brother of the patient informed the doctors, that he was determined to have other means used than that which had been employed in his late sister's case, and if they could not think of any other, they could

not attend his sister any longer, in consequence of which the doctors left the house. I then was requested to call and see her, and found the following symptoms present: The pulse was beating 130 in a minute; countenance anxious and flushed; breathing quick, short, and attended with pain on attempting to take a full breath or on coughing, which was very harassing; bowels costive; had cold sweats towards morning; in short, all the symptoms of consumption were present. I commenced the treatment of this case with small doses of ipecacuanha and calomel, two grains of the former and a third of the latter, were taken three times during the twenty-four hours, and continued three days, which had the effect of reducing the pulse, and removing the constipation of the bowels at the same time. For the purpose of preventing irritation, I ordered two grains of the extract of henbane to be taken every night at bed-time. The feverish symptoms having been removed by this means, I prescribed a mixture of sulphuric and nitric acids, one drachm of each to be diluted with two ounces of water, one tea-spoonful of which was mixed with a pint of cold sage tea, and drank during the day. This put a stop to the night sweats in a short time. I also had the cold air admitted into the patient's apartment, which was very agreeable to her, as she had not been allowed a breath of it for at least a month previous. In six days after this treatment was commenced, the patient was able to ride out in a close carriage, and continued to do so every fine afternoon during the winter, and gradually recovered her strength until she got perfectly well.

Had this young lady continued the treatment which she was using at the time I first saw her, she undoubtedly would have died of consumption in a very short time. In fact, I know of no remedy that is so pernicious in cases attended with the above symptoms, as small bleedings for the purpose of removing pain, confinement, low diet, and salts.

Case 2.—August the first, 1833, I was requested to visit a lady who was supposed to be very ill. On my arrival, I received the following history of the case from the afflicted lady's sister: The patient was about twenty years of age, had been during the last four years liable to what was called, by the physician who attended the family, an "habitual cough," but enjoyed tolerable

good health until the fall of 1834, when she was confined to the house with a catarrhal affection, which aggravated the cough, and caused it to be much more troublesome. After being for some time in this state, she began to have feverish symptoms which were generally much worse in the afternoons than at any other time of the day, and were treated by the physician who was in attendance with bark, quinine, and arsenic. After several weeks, these attacks of fever disappeared, but she did not get well. Her chief complaints now, were bad digestion, pain in her right side, and the "habitual cough." The physician now treated her for disease of the liver, by salivating her profusely, but without any good effect. About the beginning of June, she was attacked with huskiness of voice and some uneasiness in breathing, for which she was bled frequently, and kept on spare diet which reduced her considerably. Her debility and emaciation, it appears, convinced the physician that some fixed and extensive disease had located itself in some important part; and from the remedies which had been prescribed, I suspected that the physician apprehended consumption, as he advised a change of climate, notwithstanding it was midsummer. About this time she was attacked with a profuse hemorrhage of the lungs, on account of which I was called in, (the attending physician not being at home.) I recommended the remedies used in case of acute hemorrhage of the lungs, which had the tendency of arresting the bleeding. After receiving this history of the case, I was requested by the friends of the sufferer to continue my visits, to which I consented after being informed that the family doctor was willing to abandon the case.

She was in the greatest emaciation and debility from the previous treatment and hemorrhage. Her mouth and tongue were covered with a white bluff, throat sore, and swallowing so difficult, that I was apprehensive of fatal consequences, particularly as the cough was still severe, and respiration by no means easy. In addition to the above symptoms, she complained of pain in the chest and palpitation of the heart. I found in this case that there was considerable disease in the upper part of the spinal marrow, and determined to put my trust in external irritating applications to that part, and applied the treatment recommended on page

133. This, in a few days, produced a considerable change for the better, but there was still much debility and obscure hectic symptoms. About this time a lady, an acquaintance of the patient's, wishing to have a correct opinion of the nature of the case, got a physician of great note to accompany her on a visit to the patient. After he had examined her very closely in various ways, he informed the person who had solicited his opinion, that the lady was in the last stage of consumption, and could not live ten days, and that the physician who was attending her must be deceiving the young woman, for no one could be so much mistaken in her case, as to suppose that she could be restored or even relieved from the state which she was in. On my next visit, the friends of the patient appeared much offended at me for not giving them warning of her danger. I felt much surprised at the doctor's conduct, but did not think him worthy of notice, and the patient herself thought him a fool, and did not put any confidence in what he said. She continued persevering with the remedies I had prescribed, and in place of dying in ten days, she began to recover very fast, and in a short time was restored to health. It is now upwards of five years since this occurrence took place, during which time the young woman has continued to enjoy the most perfect health, and has no return of the "habitual cough," (as it was termed,) which she had been troubled with so long before her severe illness.

Case 3.—The subject of the following history I did not see during life, but was present at the examination of her lungs when the circumstances of the case were related to me.

Miss ———, a young lady in her 19th year, had an attack of pleurisy about twelve months previous, which had been neglected or badly treated at its commencement, was severe and untractable, and for several weeks after the urgent symptoms were removed, cough continued, with short anxious breathing. By care, quietness, and CLOSE CONFINEMENT IN A HEATED CHAMBER, these symptoms disappeared; and she appeared free from all danger of consumption, excepting DEBILITY AND HARD BREATHING, WHICH WAS EASILY HURRIED BY EXERTION. During the summer she had continued nearly in the same condition, but in the following WINTER SHE IMPROVED CONSIDERABLY IN STRENGTH. In the suc-

ceeding spring at the commencement of the warm weather, there was an increase of debility, with failure of appetite and small frequent pulse, and an acute pain which was referred to the spine in the cervical part, but it was not attended to. In the beginning of June she was considerably stronger, and had been able to walk out. Shortly after this time, she was seized with oppression of breathing without pain, for which she was bled and blistered. The following day she appeared better, but became worse in the night, with small frequent pulse and sudden prostration of strength, and died on the following morning.

Examination of the diseased parts.—On opening the chest, the left lung was found much diseased and wasted in substance; the right was also extensively ingurated and full of abscesses; the pleura was likewise much diseased. The liver was much diseased, and presented more the appearance of a mass of matter than a healthy liver.

Had this patient been properly attended to during the winter previous to her death, there is no doubt in my mind but she might have been restored; and at the time she was attacked with difficulty of breathing, if other remedies had been employed in place of bleeding and blistering, such as friction, irritating applications to the extremities, warm bathing, &c., her life might have been prolonged.

INFLAMMATION OF THE STOMACH.

(*Gastritis.*)

Inflammation of the stomach is characterized by a peculiar burning pain in the organ or its vicinity, increased on swallowing food or drink; rejection of every thing taken into it; sudden prostration of strength; high fever, hiccup, quick pulse, &c.

The pain is often extremely acute, and much aggravated by even the slightest external pressure over the region of the stomach. Vomiting, in this complaint, is always present at the commencement of an attack, and hiccup towards the close.

Diagnosis.—Spasms, or cramp of the stomach, is distinguished from inflammation, by its being unattended with the sudden loss of strength above stated, by the pulse being natural, and by there being little or no increase of pain in taking food or drink into the stomach, or from external pressure.

Cause.—Irritating or corroding substances, received into the stomach; cold water swallowed in large quantities, when the body is heated, and in a state of perspiration from exercise; over distention of the stomach by indigestible food and stimulating drinks; metastasis of gout and rheumatism.

Treatment.—Bleeding freely at the commencement of an attack of this disease, is of the greatest importance; and if the patient has had previous good health, the small and weak pulse which attends the affection, must not prevent a copious extraction of blood; for, in a case of this character, bleeding is generally most required. But if the patient should be a delicate person, it will in general be most proper to have the blood taken with cups or leeches from the diseased part. After a copious bleeding, the inflammation often suddenly disappears; if, however, it should not be reduced, the next most important means is the application of leeches, followed by a large blistering plaster over the region of the stomach. I have found mustard to answer better than flies, in cases of inflammation in this organ, as it produces a more permanent irritation of the skin.

The ordinary internal remedies used in cases of inflammation in other parts of the body, such as nitre, tartar emetic, and purgatives, are entirely inadmissible in this disease. Considerable advantage may be obtained, however, from the moderate use of mucilaginous drinks, such as flaxseed tea, barley water, or a solution of gum arabic in water. The VEGETABLE acids, diluted with an infusion of the slippery elm bark, has been attended with the happiest results in my practice, when the cases were attended with distressing thirst. M. Broussais recommends orange juice diluted in water. The MINERAL acids must be forbidden.

It is of the greatest importance that the bowels be kept open in treating this affection; and for this purpose purgative clysters must be frequently employed. The following will be the best:— Dissolve an ounce of epsom salts in a pint of thin starch, and add two ounces of olive oil. After the intestines have been freely evacuated by this means, or if looseness should attend the complaint, it will be proper, for the purpose of allaying the pain and vomiting, to administer large doses of opium; one grain of this in combination with half a grain of calomel, should be given every three hours, until the patient appears relieved and inclined to sleep. Dr. Armstrong, of London, says, when speaking of the treatment of this disease; “Opium, when given in health, constipates the bowels; but this is so far from being the case in gastritis and enteritis, that it tends to assist the action of purgatives, and when exhibited in conjunction with proper depletion, it may be fairly accounted one of our best remedies. The two most remarkable effects of full doses of opium in gastritis, are, the relief of the pain and the reduction of the pulse, so that the patient falls asleep shortly after their exhibition, and the pulse, which had previously become small and quick, will become full and slow.”

During convalescence from this disease, the greatest care is necessary to avoid taking indigestible and stimulating food and drinks. Nothing but the lightest liquid kinds of nourishment should be taken, such as oat-meal gruel, boiled milk, beef or chicken tea, or preparations of arrow root, sago, rice, &c. I would also remark, that in cases of this affection, it is of the greatest importance that the patient take very small quantities of either food or drink at a time, but they may be often repeated.

INFLAMMATION OF THE INTESTINES,

(Enteritis.)

Symptoms.—This affection most generally commences with a feeling of uneasiness in some part of the abdomen, terminating, after some time, in a fixed, burning sensation, which is usually felt most sensibly in the region of the umbilicus. In some instances, the pain is confined to a particular, circumscribed part, but it more frequently becomes diffused throughout the whole abdomen. The disease may, however, exist in a slight degree without pain or any uneasiness whatever in the bowels, unless pressure is made over the affected part. Obstinate constipation is almost invariably present. Nausea and vomiting is also a common attendant. The tongue is dry, and coated with a white fur; the pulse small, but much slower than is generally found in cases of inflammation in other parts of the body.

Cause.—The suppression of perspiration by the application of cold to the feet, or exposing the body to cold when over-heated; acrid, stimulating, or irritating substances, passing through the bowels; obstinate constipation, external violence, inflicted by blows, pressure, &c. It is most apt to occur at an advanced period of life.

Diagnosis.—It is distinguished from colic, by its being accompanied with fever, small pulse, and by the pain being increased on pressure, symptoms which do not occur in colic.

In inflammation of the stomach, the pain is seated higher in the region of the abdomen, and is much more acute, the vomiting and hiccup are much more severe, and the dejection of mind and prostration of strength much greater.

Treatment.—Bleeding is a very important remedy in this complaint, and should never be neglected. As it is extremely dangerous to administer the common irritating remedies used for the purpose of subduing inflammation of other parts, on account of their having to pass through the bowels, and would be likely to aggravate the disease; blood-letting ought, therefore, to be em-

ployed early and frequently, according to the violence of the complaint, and the strength and age of the patient. In the commencement the blood should be taken from the arm, and the operation be repeated to the second or third time, at intervals of a few hours, according to the severity of the symptoms, it being remembered, (as I have stated in a former part of the work,) that the abstraction of a large quantity of blood within a short time is invariably to be preferred, to withdrawing the same quantity at a longer period, or at intervals of a day or two. Indeed twenty-four ounces of blood, taken within twenty hours, will generally be of much greater service in acute inflammations, than one hundred ounces taken in small bleedings, within four or five days. The application of fifteen or twenty leeches to the abdomen, should immediately follow the general bleeding; if they are not to be had, or if the patient is delicate from previous disease, a mustard plaster should be applied over the abdomen, and suffered to remain on the part until redness is produced. At the same time, mild purgative medicines must be administered, they being of much importance in this inflammation, notwithstanding they require to be used with caution. Castor oil is the safest. But I must remark, that in this disease and inflammation of other organs within the abdomen, the most active purgatives will frequently fail of producing the desired effect, until the inflammation is in some measure subdued by the remedies already mentioned; and as this affection is generally attended with obstinate constipation, there is danger lest the attention of the medical attendant, and the patient's friends, should be too exclusively directed to the importance and removal of this symptom. I have known physicians lay the entire stress of the case upon the unconquerable constipation, and direct all their treatment to its removal, by the use of purgatives and clysters, to the neglect of free and copious blood-letting, and the other means hereafter mentioned. In consequence of which their patients have died, and when a post mortem examination has taken place, extensive ulceration and mortification presented themselves. The fact is, that the constipated state of the bowels depend upon the inflammation, which must be subdued by the use of the lancet, and of calomel, and opium, before it can be overcome; and, therefore,

to treat a patient, in this constipated state, altogether with purgatives, clysters, the warm bath, and quicksilver, would be a dangerous and very bad practice. The proper plan of procedure is, after ten or twenty ounces of blood have been taken from the arm, administer one ounce of castor oil, and, if there is much pain, combine with it two grains of opium and five of calomel. As soon as the abdominal pain is allayed, and the skin becomes moist, effects which invariably follow the use of opium, an enemata must be given to promote the operation of the oil. One of the best injections for the purpose, says a late eminent practitioner, is spirits of turpentine, mixed with mucilaginous fluid. I prefer the following at the commencement; dissolve one ounce of salts in a pint of boiling water, then add two table spoonfulls of ground flaxseed, and two ounces of olive oil, to be thrown into the bowels at once. If this should not affect the bowels in one hour, it ought to be repeated; at the same time, flannels wrung out of hot water should be laid over the whole surface of the abdomen, and when the general excitement has subsided, a large plaster of mustard should be applied to that region.

Inflammation of the bowels may occur, however, unattended with obstinate constipation. I had a case of this character, not long since, which proved fatal, and for the purpose of showing the importance of having some knowledge of the treatment which should be used in a case of the kind, I will relate the circumstances.

I was requested, about four months since, by a highly respectable gentleman, residing a considerable distance from the city, to attend his wife, who had been indisposed for a long period, and could not get any benefit from medical aid, notwithstanding he had employed a number of physicians. At my first visit, she told me that she had been in the condition which she then was for about two years, but found that she had got much worse during the last three or four months, and the family doctor, together with others, said they could do nothing more for her; she said that she had heard of me long before, but had been told by her doctor that I had left Philadelphia. She appeared like a lady in the most perfect health, notwithstanding she had not been able to sit up more than a few minutes at a time during the last three or

four months ; there were no acute pains felt, not even on pressure, in any part of the body ; her bowels were not constipated, but very torpid, and enormously dilated and extended, so as to indicate dropsy ; but the principal thing complained of, was weakness in the small of the back. I had reason to believe, from this lady's account of the way she had been, and the symptoms present at the time, that her sufferings proceeded from a torpid and relaxed condition of the bowels, and that there had not been a thorough evacuation of them during the two years* of her indisposition, and that the liver was enlarged and torpid. I informed her of the nature of the case, and told her that I believed that she could be restored, but it would require a considerable length of time, on account of her being too delicate to bear active remedies, and it would be necessary to attempt to invigorate her constitution in some degree before the proper medicines could be applied with safety. I ordered a few grains of a preparation of Peruvian bark, and the fourth of a grain of calomel, to be taken every day at ten o'clock, and a pill, composed of one grain of the extract of hyosceamis, to be taken in the evening, for the purpose of allaying the nervous irritation. I would remark, in this place, that this extract has been found to answer the purpose for which opium is given, in a great measure, and has not that deleterious effect upon the constitution, which opium is known to have. Dr. Coxe, formerly Professor in the University of Pennsylvania, says, "an *extract* from the leaves or from the seeds" of this plant, "is the form in which it is given internally ; and it has been used with advantage in a variety of nervous affections, as mania, melancholia, epilepsy, hysteria, trismus, and spasms from injured nerves ; in rheumatism and arthritis, in glandular swellings, in obstinate ulceration, and in many cases where it is necessary either to allay inordinate action, or to mitigate pain, its dose may be gradually increased from half a grain. Cullen pushed it to the length of 30 grains for a dose."

I informed the patient, that notwithstanding the medicine I had

* This may appear singular to those who have not had much experience ; but I can produce a case in this city, where an individual had not an evacuation of any kind from his bowels, during eight years. (See Constipation of the Bowels.)

prescribed was not of a purgative nature, it would be likely to act in that way after some days, and that as soon as she found it to produce a purgative effect it was to be abandoned until its effects had subsided. After taking these remedies six or eight days, she was taken with a diarrhœa, as anticipated, in consequence of which I was requested to see her; but being engaged at the time, I instructed the gentleman who delivered the message, to return and administer a tea spoonful of castor oil, in combination with ten drops of laudanum, and I would visit her in a few hours. On my arrival, I was informed that several quarts of very offensive matter had passed from the bowels, and the enlargement of the abdomen was removed; and since the oil and laudanum had been given, she appeared much better. I informed the patient that the remedies had produced the effects anticipated, and that she might expect to be restored to health in a short time, and I would prescribe a mixture, composed of three drachms of chalk, one of laudanum, and two drops of the oil of mint; to be rubbed together and mixed with five ounces of water; one table spoonful of which was to be taken every hour; in case the bowel complaint returned, and if she found it insufficient, to call in her family physician, as he was in the immediate vicinity, and could see her frequently; but if it did not return, she was to commence taking the remedies I had prescribed on my first visit. The diarrhœa, however, unfortunately returned, and continued; the physician was called in, but did not succeed in checking it; and after six or eight days' attendance, he informed the family that he could do no more; in consequence of which I was again requested to attend, and was informed that all the doctor had prescribed, during the six or eight days, was an emetic and ice. I suspected the result that had been produced, and went with all possible haste to see the afflicted lady. On my arrival, I was informed that the patient had a return of the diarrhœa shortly after I left her, and that she had called in the family doctor, and he had recommended ice; and during the six or eight days which he had attended, she had taken one bushel of it without the least nourishment whatever. I examined the patient, and found her even in a worse condition than I anticipated. She was so weak as not to be able to utter one word louder than a whisper; feet and hands cold; in short, all the symptoms of mortification of the

bowels was present. I saw no prospect of being able to produce a reaction; but ordered the ice to be discontinued, and administered small quantities of brandy, largely diluted with water, which had the effect of reviving the pulse. In the meantime I ordered a tea to be made, by boiling a small quantity of mutton in water, to be taken as a drink. But, alas, it was too late; she grew weaker, and expired in a few hours.

Says an eminent practitioner, formerly Professor in one of the medical colleges of this city, in speaking of mortification of the bowels occurring in this disease, "When the symptoms which are known to announce and accompany the occurrence of gangrene" *mortification* "supervenes, we should not immediately abandon all hopes of the patient's recovery, or cease our efforts to save him. In instances of this kind, the exhibition of stimuli will occasionally speedily remove every dangerous symptom. I attended a man during the present year affected with acute enteritis," (*inflammation of the bowels.*) On the sixth day of the disease the pain ceased, his pulse became extremely small and weak, and the hands and feet of an icy coldness, and damp, and great vascular prostration. I supposed gangrene had taken place, and announced to the patient's friends his speedy and inevitable dissolution, and ordered all remedial efforts to be discontinued, with the exception of the use of wine and water, as freely as he might desire to take it. Instead of finding him dead, as I expected, on the following morning, he was so much better as to leave very little doubt of his final recovery, an event which was happily realized."

The means which should have been used in this lady's case, and in all cases of inflammation of the bowels occurring in delicate persons, and in cases unattended with obstinate constipation, in place of giving ice or cold water, opium and calomel should have been given freely; ten grains of the former and five of the latter should have been mixed, and divided into ten parts, one of which should have been given every second or third hour, if the patient did not get to sleep. Indeed, this composition has been of the greatest utility in my practice. Dr. Hamilton, an eminent European physician, was one of the first who made this remedy's remarkable power known. Dr. Armstrong, of London, has

observed, that so great is its efficacy in many such cases, that it deserves to be written in LETTERS OF GOLD, and always to be borne in mind by medical practitioners. Sir Astley Cooper, in speaking of inflammation generally, says: "The treatment of inflammation has been improved of late by exhibiting calomel and opium." My practice is never to bleed in cases of delicate persons, nor in cases attended with diarrhœa, to any great extent in active inflammation of the bowels; but invariably administer the opium and calomel. The calomel is the principal ingredient, but the opium prevents its passing off by the bowels, and assists in allaying pain. This medicine given as directed above, together with a few leeches or a blistering plaster, followed with flannels wrung out of hot water and applied over the region of the bowels, a small quantity of castor oil as occasion requires, and a proper diet, will be found quite sufficient to remove this species of the complaint. A late eminent physician of this city remarks: "Drs. Armstrong and Johnston (of Europe,) have done much towards removing the prejudice so generally entertained against the employment of opium in some of the phlegmasial affections. The former of these eminent writers states, that his attention was drawn to this subject by observing a chasm or defect in the common mode of treating acute abdominal (*bowels*.) inflammation by the simple depletion of bleeding and purging. He had long observed, that when in affections of this kind opium was given in full doses, immediately after copious depletion, the case terminated successfully. Within the last four years, I have prescribed large doses of opium, conjoined with blood-letting, in at least a hundred cases of acute and sub-acute inflammation in the abdomen, and always with obvious advantage."

The cause of the lady's death, mentioned above, was after the foul matter which had been lodged in, and attached to the bowels, was removed, they were left in a tender and no doubt ulcerated condition, and the irritating secretions from the diseased liver coming in contact with them, produced inflammation, and, of course, great thirst or desire for cold water: this was given in the popular form of ICE, which increased the irritation of the bowels, and as a matter of course, greater thirst. This plan being continued with the exclusion of all nourishment, exhausted the

patient's constitution to such a degree, that mortification was produced. Dr. Johnston, in speaking of a fatal case of this disease, observes: "Medical men now-a-days trust too exclusively to sanguineous evacuations in inflammation of the bowels, and neglected certain and powerful auxiliaries which they would do well to call to their aid. If, when they have bled copiously, and as far as the patient's strength will bear, [and the same may be said of depletion by any means] they will exhibit opium in combination with calomel, they will have the satisfaction of saving many lives."

Had the brandy and mutton tea which I administered to this patient after all the symptoms of mortification were present, been given one hour sooner, an affectionate and amiable wife would have been restored to the protection and guidance of a lovely family.

Mild and mucilaginous diluents should be given freely through the whole course of this disease, and during the period of convalescence from it, the patient should abstain entirely from every kind of stimulating or indigestible food. Nothing but the mildest and least irritating articles of diet should be used for several weeks after recovery. I will take this opportunity of cautioning young physicians against placing their patients in the care of doctors whom they are not acquainted with. I do reproach myself for want of discretion in this matter, more particularly when I call to mind the want of success and discernment which had attended the doctor's practice in this case, during the two years which he had charge of it. It is not a sufficient evidence of a physician's capability, when the family which he has attended appears to be satisfied with his success; for it does appear to me that some of our most intelligent citizens use no other criterion in judging of the person's qualifications whom they employ to attend their families, than a brilliant appearance and frequent visits, let the result be what it may.

VOMITING BLOOD, OR HEMORRHAGE FROM THE STOMACH.

(*Hæmatemesis.*)

Vomiting of blood is produced by a rupture of a blood-vessel in the stomach, generally caused by disease of the digestive organs and parts in their vicinity. It is often preceded by pain or uneasiness in the left side, with anxiety, and a sense of tightness in the chest, loss of appetite, foul breath, acid eructations, nausea, disposition to syncope, and a small, contracted pulse. It may occur in persons of a full habit and robust constitution, but is most common in those who are weakly and debilitated from previous indisposition.

Cause.—Among the circumstances which tend most particularly to produce this affection, are indurations of the liver and spleen. It occurs in consequence of suppression of the natural secretions in females, or suppressed hemorrhage from piles, more especially when favoured by an indulgence in the pleasures of the table, or by an inactive and sedentary mode of life. Various local causes may also produce the complaint, such as acrid or corroding substances received into the stomach; blows over the region of the organ, &c. Young females are most liable to this species of hemorrhage, especially those in delicate health from irregularities.

Diagnosis.—It is, in general, easily distinguished from spitting of blood by its being brought up by vomiting, and by its being of a dark colour. It is also often mixed with some of the contents of the stomach. In spitting of blood, on the contrary, the fluid discharged from the lungs is brought up by hawking or coughing, and is of a bright red colour.

Treatment.—If this complaint occurs in its active form in a person of a full habit, and possessing considerable strength, it will be proper to have ten or twelve ounces of blood taken from the arm, and to take some gentle purgative medicine; the epsom salts will be the best. Half an ounce of these ought to be taken

every three hours until they produce the purgative effect ; at the same time observing a mild and spare diet, with quiet and rest. It will be advisable for him to take a small quantity of the epsom salts every morning for a fortnight. These means will generally be sufficient to remove the complaint at the commencement, but if any auxiliary be wanted, ten drops of the tincture of foxglove may be taken in a table-spoonful of camphor mixture, or in water, twice or thrice a day for two or three weeks.

But vomiting of blood, as I have already stated, is most commonly met with in the delicate, and those who are suffering from weakness and derangement of the stomach and other parts ; and our endeavour must be to lessen irritation in those parts, without further debilitating the sufferer, and for this purpose mild astringents and aperients must be employed. If it be necessary, from the great discharge of blood, effectually to put a stop to it immediately, an emetic of twenty-five grains of ipecacuanha in powder should be given, and if this fails to stop the hemorrhage, the same quantity may be given a second or third time, after intervals of two or three hours. Dr. Chapman of this city has resorted to emetics with great benefit. They are applicable to the case of the strong as well as weak persons ; but in order to render the benefit obtained from its exhibition permanent in delicate subjects, tonics must be entered upon without delay and persevered in. The best medicine for this purpose will be the sulphate of quinine ; a drachm of this mixed with a sufficient quantity of the extract of gentian to form a mass, and divide into thirty pills, one of which may be taken twice a day.

The super-acetate, or sugar of lead is also a powerful medicine in this species of hemorrhage, as well as in all other profuse bleedings. CAUTION, it must be recollected, is of use when it is administered. In cases where the patient has become so weak from the loss of blood as to render it dangerous to administer an emetic, it ought to be resorted to without delay ; two grains dissolved in a table-spoonful of the camphor mixture once in six hours, and repeated twice or three times if the bowels are not confined ; if so, an injection of common salts ought to be given ; one tea-spoonful of it may be dissolved in half a pint of lukewarm water, to which may be added as much starch as will

give it some consistency. At the same time, small quantities of salts may be given for the purpose of removing the constipation.

It is a very common practice with old women and some doctors to administer common salt in this disease. It is extremely improper, at least to give it too often, or in large quantities. I was not long since requested to see a young female who had been taken with spitting of blood in the night, which produced great alarm. Dr. R*** of Chesnut street was called in, and I suppose suspected the hemorrhage to proceed from the stomach. He ordered the young woman to take a tea-spoonful of table salt every half hour until the bleeding would cease. She was alarmed, and took it according to orders until she had taken half a pound, but the bleeding continued. When I arrived she was in the agonies of death, from the effects of the salt on the stomach. The blood proceeded from a rupture of a blood-vessel in the lungs, and of course the salt could have no effect upon it, unless to aggravate the disease.

The diet in cases of delicate persons should be of the most nutritious and unirritating kind, and the drink bland, cool, and acidulated. After an attack of the complaint, the diluted sulphuric acid will generally be useful in restoring the tone of the stomach, and checking the tendency to the disease. A tumbler full of water made pleasantly sour by dropping eight or ten drops of this acid into it, may be taken during the day.

COSTIVENESS, OR CONSTIPATION OF THE BOWELS.

Habitual constipation of the bowels is met with in two different habits of body; that is, in those of a robust constitution, with a good appetite and strong digestive powers, and in others, who are enfeebled, or in delicate health, with bad or impaired appetite, and weak digestion.

Cause.—The first species of this complaint appears to arise from an excess of action in the absorbent or other vessels of the bowels, and from a free use of heating astringent food and drink; while the other description depends upon weakness of the intestines, and a consequent sluggishness in their peristaltic motion. This species is much increased by any thing which has a debilitating tendency, as active purgative medicines, &c.

Treatment.—The proper plan of procedure is, when the disease occurs in the strong and robust, to commence with cooling saline medicines. Epsom salts and castor oil will be the best; the patient abstaining, at the same time, from all articles of food or drink which are of a heating or stimulating nature, and exercise of a fatiguing character. It will also be proper for him to take some alterative medicine; the following will be found to answer the purpose: Take of calomel ten grains, tartar emetic five grains, rhubarb three drachms; mix, and divide into twenty parts, one of which may be taken every night, and persevered in for a month or two if necessary; at the same time, an occasional dose of salts may be taken, if the preceding do not produce sufficient effect.

When it takes place in the delicate or debilitated, the remedies employed must be very mild, of a warm and slightly astringent nature. I have used the following with decided advantage: Take of compound extract of colocynth one drachm, rhubarb two scruples, Castile soap twenty grains, oil of juniper ten drops; rub them well together, and divide into twenty-four pills, one of which may be taken morning and evening, or oftener, until they produce the desired effect, when they may be taken as circumstances appear to require. If, however, they should not prove sufficiently laxative, an occasional dose of sulphur may be taken at bed-time, a tea-spoonful will be the proper quantity; or the common Seidlitz powder may be taken occasionally during the day. This will be the best, if the patient should be troubled with acidity of the stomach, which is, by the by, a very common attendant on the complaint.

The powder of ipecacuanha is also of very great service in this species of the disease, it being well calculated to invigorate the stomach and intestines, and remove the relaxed condition of the

parts, which is the cause of the constipation, and at the same time it relaxes the skin, and promotes the action of the system generally. I have not known it to fail in giving relief in any case, and in some instances even of long standing, it proved of essential utility. One grain of the ipecacuanha powder may be made into a pill, with three grains of Castile soap, and taken four or five times during the day.

In all cases of the complaint active purgation must be avoided, on account of its giving but temporary relief, and invariably induces still greater debility in the intestinal canal, and thus in reality aggravate the evil they were intended to remove.

A constipated habit of body is a fruitful source of many complaints, as piles, fistula, stricture, general debility, lowness of spirits, headaches, and various other evils. I was requested to visit a gentleman, about two years since, who had been afflicted to such a degree as not to have an evacuation from his bowels during eight years. The disease came on gradually, and he had been in the habit of taking an active dose of purgative medicine every eight or ten days during the period of three years previous to the time when his bowels ceased to perform their office. I did not prescribe for him, as I thought him incurable. He suffered the most exquisite pain in his lower extremities, notwithstanding they had wasted to such an extent as to appear to be destitute of substance. The upper half of his body was in good health, and he had an extraordinary appetite; but in about one hour after he had taken his meals, vomiting occurred without the least sickness at the stomach. He was perfectly sane, and of a strong mind, the last time I saw him.

The bowels are organs of so much importance, that they never should be neglected, and they deserve much more attention than is generally bestowed upon them. The most effectual and safe method of preventing the complaint, or removing it effectually after it is established, is by diet, friction, exercise, and the occasional use of a little mild medicine. It is unwise and unsafe to trust altogether to the frequent use of active medicines; they may occasionally be resorted to in a desperate case, but the relief gained by diet, and the occasional employment of a clyster, is more certain, permanent, and beneficial.

As respects diet, great caution should be observed to avoid all articles that are known to aggravate the affection, and indulging moderately in those which are relaxing. Generally speaking, the afflicted will find, that excess of food will increase the costive habit, by disordering, and still further debilitating the bowels. The use of brown, instead of white bread, is a means which has been recommended by a number of the most eminent practitioners, when aperient medicines have been resorted to with only partial and unsatisfactory benefit, and if after a time it should lose its effect, it may be alternated with bread made of one-third or one-half rye flour, mixed with the wheaten flour. They have also recommended bread made of barley; but I believe corn bread to be preferable to either. The constant use of corn baked in bread, or otherwise, has been of the greatest consequence in a number of very obstinate cases, which have come under my notice; it is well known to possess a stimulating quality, and is much more nutritious than any other species of grain. Ripe fruit, such as apples, prunes, figs, &c. either stewed or in the natural state, is beneficial.

An eminent European surgeon, in speaking of the complaint, observes: "By the term constipatio is expressed, not merely costiveness, but a stoppage of the bowels from some original and local affection, as rupture, schirrosity, or stricture of some portion of the intestines, narrowing and often obstructing the canal. Tumors and concretions, external to the bowels, have occasionally the same effect. Strictures take place in different situations; but they occur so frequently about the sigmoid flexure of the intestine colon, near its termination in the rectum," (*lower portion of the bowels*) "that this part should be carefully examined in every case of a total obstruction of the bowels." He directs, for the purpose of ascertaining the existence of this, to introduce a bougie thirteen inches long, and of a proper strength; it should be directed by a skilful surgeon. I have had a number of obstinate cases of this complaint, which was found to be connected with diseases of the spine or spinal marrow, and I would advise persons who are afflicted with the complaint, and find that it will not yield to the common remedies, to have the spine examined. For further information, see page 103. If the spine is found to

be in the least diseased, it will be in vain to attempt to cure the constipation until the spinal affection is removed. For the manner of proceeding in a case of this kind, see page 134.

DYSPEPSIA, OR INDIGESTION.

Says a late eminent writer and successful practitioner, formerly of this city, "Common as indigestion is, and serious as are its consequences upon the health and happiness of man, there is, perhaps, hardly any other malady which is so commonly misunderstood, and consequently mismanaged." I had allusion to this fact when speaking of disease of the nerves (see page 111,) in a former part of this work, and will merely mention here, that those who fancy that this disease and all others are confined to, or proceed from, the stomach, had better try whether they cannot trace the disorder of this organ; also, sometimes to affections of other parts. For my part, I have found no difficulty in doing so, and probably if they would try they would find as little, and their trouble would be amply rewarded, for then they would be able to remove a complaint which has been thought by many of them to be incurable, at least it has not been removed by them in most cases. The great obstacle which appears to be in their way, as I have before stated, consists in their having been taught that the digestive organs are invariably the seat of disease, and they have taken it for granted, instead of proposing to themselves the question, whether or not they be so, and of investigating the matter for themselves. That the digestive organs often neglect their duty, or perform it in an improper manner, I will admit, but why they alone should always be accused of producing ill-health, or of want of action, requires better testimony to convince me than what has been offered. I could particularize here, but will refrain. I trust; however, what I have said will lead some

of the young men who are preparing to enter upon the duties of the profession, to investigate the subject for themselves. The public, or at least that part of it which is afflicted with the disease in this city, have become impatient with the practice of sucking gum water, and having leeches applied; and if there is not a more successful mode of treatment adopted, the afflicted will become disgusted with the faculty, as many of them already are.

Symptoms.—The symptoms of indigestion differ considerably, according to the length of time the complaint has been existing, or the degree and extent of the irritation. At the commencement there is a feeling of distention or oppression after eating; variable appetite; acrid eructations; constipation of the bowels; furred tongue; flatulency; nausea; headache; sometimes bilious vomiting; palpitation of the heart; pain in the pit of the stomach, and towards the right side; sallowness of complexion; depression of spirits, &c. After the disease has been in existence for some time, or is aggravated by some unusual irritating cause applied to the stomach, the pulse becomes tense and quick; the epigastrium tender to the touch; the mind irritable, discontented and gloomy. He is tormented with colic pains after taking food; the bowels become more irregular, being sometimes constipated; at others, affected with diarrhœa, during which portions of food are occasionally passed off in an imperfectly digested state. The body now begins to waste, the strength fails, the distress of the stomach after taking food is insuperable, the countenance assumes a withered and sallow aspect, the individual complains of difficulty of lying on the left side, the skin becomes dry and shrivelled. The whole of these symptoms, however, are not always present in the same patient, but under whatever form, and from whatever cause the disease occurs, there is a considerable degree of general languor and debility; exercise, or exertion of any kind soon fatigues; the sleep disturbed; the limbs are cold, or rendered so on slight exposure; and a sense of distention and oppression, acrid eructations, nausea, headache, constipation, pain in the pit of the stomach, and sallowness of complexion are pretty constantly present.

Cause.—The first or predisposing cause of this affection, I apprehend to be, derangement of the nerves which supply the sto-

mach with nervous energy, especially in large towns where the minds of a great portion of the citizens are constantly engaged in commercial and other fluctuating pursuits. I presume there are few who have not, at times, experienced some mental anxiety, either of painful hope or the fear of disappointment; and those who have ever been under the influence of such anxiety, must be sensible of the effects which it produces on the stomach. But it is not the digestive organs alone that submit to the agency of this powerful cause; the functions of almost every part is in some degree deranged or suspended. The digestive apparatus, however, on account of the important office which it is required to perform, is more sensibly affected than any other part, the nervous influence necessary in its action being suspended, the stomach rejects that which is presented to it, or retains it in the same state as it was taken in, where it produces a sense of weight, flatulency, and a morbid secretion of acid fluid; the liver also ceases to perform its part, and the bowels being deprived of their natural stimuli, lose their sensibility, and become obstinately costive. For particulars in this very common cause of dyspepsia, see disease of the nerves, pages 103 and 123.

Among the articles which excite or assist in the production of the disease, are everything which weakens the system generally, or the stomach in particular, such as an excessive indulgence in warm relaxing fluids, as tea, coffee, and soups, together with stimulating and acrid materials, as ardent spirits, cold water taken in improper quantities when the body is over-heated; extending the stomach by taking more food than is necessary; too long abstinence, imperfect mastication, and eating too fast.

A very productive cause of the disease, and many others in young persons, and particularly females, is the unwise custom which has lately been adopted by some of the teachers in this city, of keeping young persons in school to a much later hour than formerly. The constitutions of young individuals differ in many respects from older ones; the circulation of the blood is much more rapid in the former than in the latter; and, of course, their systems become much sooner exhausted, and require recruiting oftener. The digestive organs of young persons, are also

much more sensitive, and are more liable to be injuriously affected by the gastric fluids than those of the more aged; but this is not all—confining a young individual in school from eight o'clock in the morning until two or three in the afternoon, is extremely pernicious to health, not only on account of the confinement, but because they are apt, after fasting such a length of time, to take too much food, and the stomach being in a great measure exhausted, it would be much more injuriously affected than it would have been had the same quantity of food been taken at an earlier hour.

But I believe the cause of the great prevalence of dyspepsia, in this city, which has been witnessed during the last eight years, has been produced by those destructive pills, panaceas, and millionth parts of grains of medicine, which have been advertised by quacks and other impostors, for the removal of disease.* Says a very eminent European surgeon, when speaking of the cause of this affection: "The foundation of this complaint is often laid in infancy and youth, by the excessive employment of calomel, a preparation which is totally uncalled for, but which has become very much in *fashion* of late years. And where the patient has fortunately escaped its frequent use in very early life, it has often proved a direct cause of indisposition at a later period. Calomel is a strong and peculiar stimulant to the digestive organs, and when frequently repeated in large doses, it impairs their natural energies, and exerts a very depressing and distressing effect upon the whole nervous system." This author further remarks, and very appropriately too: "The general mode of living in England" [and I will add in Philadelphia,] "now differs greatly from what was practised by our forefathers; indeed, there is a striking difference within the last five years. In the time of Queen Elizabeth the nobility and gentry were accustomed to dine at eleven, to sup between five and six, and go to rest at ten; and it may be added, a maid of honour in the queen's court, breakfasted upon beef, and drank ale after it; whilst the sportsman, the mechanic, and even the day labourer, now breakfast upon tea."

* For further information on this cause, see page 123.

In speaking of the causes of consumption, (page 286,) I promised to notice a species of that disease, under this head, termed by authors dyspeptic consumption. The cause, I presume, which has induced authors to adopt this name, was on account of the two diseases being often found existing, at the same time, in the same individual. I stated that the cause of the most common species of consumption, was an unhealthy condition of the body generally, and the lungs in particular; and I would here inform the reader, that the cause which produces dyspepsia is sufficient to produce tubercular consumption, and *vice versa*. This is the reason why they are often found co-existing in the same patient. Says an eminent European surgeon, when speaking of the causes of dyspeptic consumption, (and I do not only make this extract for the purpose of showing the cause of this disease, but to substantiate some statements which I made when speaking of the cause of consumption of the lungs.) "It is those," says he, "who are generally confined to the house by some sedentary employment, or the sedentary artizan, who most frequently become its victims, while those escape, as I have just stated, who are much in the open air, and in constant motion. Yet this fact, though forcibly pressed upon our observation, had at one time, and still has in many instances, little effect upon our practice. Instead of imitating nature, and inuring the patient who is threatened with phthisis, to exercise in the healthy breeze of the open day, we too often confine him to the house, and consign him to inactivity, and a stagnated and perhaps an unwholesome atmosphere, especially if he be of the lower order. And to make the disease more specially fatal, we put the patient upon a spare diet, and further debilitate the tone of his stomach with deleterious drugs, particularly digitalis," (*foxglove*.)

Treatment.—The first thing to be attended to in a case of dyspepsia, is to palliate, as far as possible, by removing the exciting causes, and with this view we must direct our attention to the adoption of proper diet and drink. In all cases of indigestion, whether simple or compound, mild or violent, an undeviating observance of suitable regulations, in relation both to quantity and quality of the food, and the manner of taking it, is absolutely indispensable to success in the management of the disease. The

afflicted individual should masticate well and slowly, take his meals at regular hours, eat no more at a time than is sufficient to satisfy the appetite, and to drink as little as possible during the time he is taking his meals, and avoid as much as convenient, active exertion during the first hour after he has taken a full meal. If the individual has lived a fashionable life, it will be necessary for him to forsake the haunts and habits of dissipation—to leave the crowded city—to shun luxurious tables, indolence, and late hours; and to retrace the path by which he wandered from simple nature, and to seek relief from the pure air of the country, moderate exercise at some useful and agreeable business, early rising, and virtuous and cheerful associates. The man of study, or sedentary habits, must lay aside his books, and habits; the merchant will find it indispensably necessary to abandon his mental exertion; and the delicate female, who has been in the habit of sitting up late at night reading works of fiction, must abandon them, and adopt some more useful employment; in short, all dyspeptics must take exercise in the open air freely, rise early, seek cheerful company, and carefully observe a moderate but nutritious diet.

Chewing and smoking tobacco, and even constant snuffing, is highly injurious to dyspeptics, and often produce the disease in those who are free from it. Dr. Cullen, a European physician of eminence, when speaking of the cause and treatment of this affection, says, "I have found all the symptoms of dyspepsia produced by snuffing, and particularly pains in the stomach." This shows the great sympathy which exists between the nerves of remote parts, and the stomach. In another place, he speaks of the case of a lady, who had been for twenty years addicted to taking snuff at all times of the day; but she observed at length that taking it freely shortly before dinner destroyed her appetite, and that even a single pinch, taken before breakfast, destroyed entirely all relish for that meal. She also observed, when she abstained entirely from snuff before dinner, her appetite continued good.

For the purpose of palliating urgent symptoms, such as violent pain, flatulency, distressing sensation in the stomach, produced by acid, and an overcharged condition of the organ, it will be proper

to take a teaspoonful of sub-carbonate of soda, dissolved in a cup of fennel seed tea, or in a wineglassful of water, to which may be added fifteen drops of the essence of peppermint. If this should not relieve the patient in an hour or two, one grain of morphia may be dissolved in one ounce of water, a teaspoonful of which may be taken every half hour until the pain ceases, or the patient feels inclined to sleep.

There is no point, at the commencement of the treatment, of greater importance than the proper regulation of the bowels; but for this purpose it will not be proper to resort to active purgation; I have administered mild aperient medicines, in the form of powders or pills, with more decided advantages in this complaint than in any other form. I would also recommend the following composition for this purpose: Take of compound extract of colocynth, two drachms; compound rhubarb pill, two drachms; ipecacuanha, in powder, fifteen to thirty grains; oil of carraway, twenty drops; Castile soap, thirty grains. Mix, and divide into fifty pills, one to be taken every night, or as often as occasion may require.

In taking laxative or purgative medicines, the dyspeptic should bear in mind, that the proper object, in his case, is to relieve the bowels, without weakening or irritating them; and small doses of such medicines as I have recommended, are by far more beneficial than large doses of drastic articles. For the purpose of removing flatulency, a teaspoonful of the tincture of ginger, or cardamom, in a glass of peppermint, or cinnamon water, will be found a useful medicine; and should acidity prevail (as is generally the case) at the same time, thirty grains of magnesia, or fifteen of the spirit of ammonia, may be added to each draught. The mineral acids are also very beneficial; but there is no medicine so effectual in removing the acid from the stomach as the sub-carbonate of soda already mentioned.

In cases accompanied with distressing nausea and vomiting, one of the most efficacious remedies is a draught of soda water, drank in a state of effervescence; it may be repeated two or three times if the sickness continues. Should this fail, however, after two or three hours, a plaster of mustard should be applied

over the region of the stomach, and let remain on the part until it produces redness.

After having removed the urgent symptoms, in some degree, the next important step will be, to attempt a restoration of the digestive organs, and system at large. This will be accomplished with most certainty, by taking vegetable bitters, mineral acids, preparations of iron, &c., together with a suitable diet. The white oxide of bismuth is a valuable medicine in this complaint. "The action of this substance," says a late eminent practitioner, "on the stomach is that of a mild and effectual tonic," and from my own experience I do not hesitate to affirm, with many others, that it is one of the most useful medicines we possess for the cure of this disease. I have found it most beneficial when given in combination with ipecacuanha, in the proportion of five grains of the former to one of the latter, three times during the day. They may either be given, rubbed up with sugar or made into a pill. The ipecacuanha powder, may also be given with advantage alone, or in combination with iron, extract of gentian, or any other bitter preparation. The eminent French physician, Doubentin, recommends it for the indigestion of elderly persons especially; but I have found it equally efficacious in younger persons, particularly in cases attended with a dry and feverish condition of the skin; it possesses an advantage over many other remedies, which are applicable in this disease, on account of its being of advantage in every stage of the complaint, and may often be administered with evident benefit when there is considerable pain and chronic inflammatory action going on in the stomach, especially with anodynes;—a condition of the digestive organs in which the metallic tonics, and even the vegetable bitters and mildest stimulants, are frequently altogether inadmissible. The following is the proportions, when given with tonics: Take of ipecacuanha, in powder, one drachm; carbonate of iron, four drachms; extract of gentian, two drachms; mix, and divide into one hundred pills, or powders—two or three to be taken twice a day.

The acids, particularly the nitric, muriatic, and sulphuric, are valuable tonics, in cases of the disease which have been of long standing. The first of these has appeared to be of the greatest

value, when the patient complained of a great deal of uneasiness at the pit of the stomach, and when the complaint appeared to be connected with a torpid condition of the liver. The appetite and strength generally improves under its continued use, and the sallow hue of the countenance speedily disappears. Two drachms of it may be mixed with two ounces of water, and one teaspoonful of this mixture, taken three times a day, in as much water as will render the acid pleasantly sour; if the patient should not feel an inclination to drink so much water, the acid may be diluted to half the extent, but to prevent its injuring the teeth, it must be sucked through a quill, and the mouth carefully washed after each dose.

In some instances, however, the acids have disagreed, and appeared too cold for the stomach; when this occurs, in a case of the last mentioned character, the following will be proper: Take of carbonate of iron, one drachm; myrrh, in powder, one scruple; extract of Peruvian bark, one drachm; socotorine aloes, in powder, ten grains; calomel, six grains; mix, and divide into forty pills, two or three to be taken twice a day.

Says an eminent physician, when speaking of mercury in cases of indigestion: "Calomel, the blue pill, and other mercurial medicines, hold a distinguished place in the treatment of indigestion, and though by no means of so much consequence as the generality of medical men suppose, they are often of eminent utility. But if the complaint originates in, and is very nearly or altogether confined to the stomach, they are often of inferior value, and sometimes of no use whatever; while in other cases of the disease, which centre principally in the bowels or liver, they are generally of the greatest service, by promoting healthy secretion, and removing obstructions. The only safe, and indeed the most efficient mode of administering them, is in small doses."

When the disease is found to resist the above remedies, and particularly if proper attention has been had to diet and drink, it may be expected to arise from a cause remote from the digestive organs, and that they are merely sympathising with other parts. I have met with some hundreds of cases of this nature, where the disease had resisted all the common remedies, and had been of fifteen or twenty years standing, which were readily re-

moved by directing the remedies to parts from which the digestive apparatus is known to derive its vitality; the defective part will most generally be found at the roots of the *dorsal nerves*, (see the part of the plate represented by 6.) When this is ascertained or suspected to be the case, I would recommend the treatment described on page 134.

Says a late successful practitioner, in speaking of this affection, "Weak and slow digestion is frequently connected with a marked sensibility of the nerves of the stomach and duodenum, independent of chronic inflammation of these organs, when the patient is subject to severe pains an hour or two after taking a meal, and more especially when the gastric distress is particularly excited by certain articles of food, which usually agree with other dyspeptics."

For the removal of that species of the disease, erroneously termed dyspeptic consumption, I would advise the remedies to be applied described on page 292. For the purpose of showing the nature and sympathies of this species of the disease, I will state a case. J. D., a maiden lady, in her thirtieth year, requested me to visit her, May, 1837, when she related the following history of her sufferings. About two years ago, she had been slightly exposed to a damp atmosphere, and was attacked shortly after with pains and swelling of the joints of her lower extremities, on account of which she consulted her family physician, (a man of great professional attainments;) he informed her that she had the inflammatory rheumatism, and must have some blood taken from the arm, and take a dose or two of salts, which was done, but to no purpose; the pain and swelling continued. After some other remedies had been administered without effect, the doctor came to the conclusion that he was mistaken, and that it was the gout she had, in consequence of which he had warm applications applied to the swollen parts, and prescribed the colcicum, but without success; the pain and the swelling, together with considerable stiffness of the lower extremities, continued for about one month. At this time the pain began gradually to abate in the parts where it had been, but commenced in her shoulders and back, for which her physician had her cupped frequently, and kept on low diet, without any favourable result, notwithstanding she had

upwards of seventy-five cups applied at different times. About this period, which was nine months after the first attack, she began to feel uneasiness in the stomach, craving for food without the ability to take it; her hands and feet were often cold, and in the place of being painful, there was a peculiar feeling of numbness; pain in the back and shoulder still severe. The physician now informed her that she had the dyspepsia, and must live on tea, toast, gruel, &c., for the purpose of trying to starve out the disease. After continuing this course for about two months, the pain in the back ceased, but it became excruciating in the stomach and head, in consequence of which she became very much reduced both in flesh and strength, without deriving any apparent benefit from the treatment, notwithstanding it had been persevered in about six months. She had in all five hundred and sixty leeches applied, and taken forty-eight bottles of medicine, together with a number of pills. At this time, she began to experience some difficulty in taking a full breath, and soon after was attacked with a slight cough, to which she called the doctor's attention; he felt her pulse, applied his ear to her chest, and appeared considerably alarmed, in consequence of which the patient asked him if he apprehended anything serious; he answered in the negative, and told her it was a confirmed case of dyspepsia, but advised her to remain in her warm room as much as possible during the winter, to live on low diet, and take Hoffman's anodyne every evening, and an occasional dose of salts. From this time until about the time I was requested to visit her, there was but little change in the treatment; she grew gradually more feeble, and at length was taken with a profuse spitting, but very little cough; her abdomen pained her very much, and caused her to request the doctor to explain the nature of the case, as she had been informed that it was not customary for dyspeptics to spit so much. The professor informed her that her dyspepsia differed from most others, and it was dyspeptic consumption. This astonished the patient very much, on account of never having heard of such a species of dyspepsia before, and as a matter of course wished to know if it was dangerous. The doctor told her, in a very grave manner, that it was incurable—in consequence of which he was requested to discontinue his visits.

The symptoms which presented themselves on my first visit, were complete emaciation and debility ; she was not able to sit up in bed five minutes at a time ; profuse discharge of purulent matter from the lungs ; swelling of the lower extremities ; distressing sense of sinking in the stomach ; slight chills, and fever in the after part of the day ; in short, all the symptoms of consumption of the lungs were present, excepting the pulse was not so frequent as is generally met with in that disease. I ordered this lady the remedies recommended for tubercular consumption, on page 292, together with nutritious food, and moderate exercise in the open air, in consequence of which she recovered her strength very fast, and in about six weeks was able to visit the sea-shore, and in a few months regained perfect health.

I could give many more instances of recovery from purulent expectoration and hectic symptoms, supposed to be of the dyspeptic origin, by the use of well regulated exercise, friction, external irritating applications along the spine, together with nutritious food and strengthening medicines.

This species of consumption will, sometimes for years, assume the appearance of a stomach affection, attended with debility, languor, headache, giddiness, flatulency, nausea, vomiting, costiveness, &c., without cough, or a single hectic symptom, and whilst the physician is directing all his attention to the dyspeptic symptoms, the real disease is making a very gradual but sure inroad on the constitution. Such cases, however, most generally occur in the delicate female in the higher order of society, who is fond of sedentary amusement.

DROPSY.

Dropsy is a preternatural collection of serous or watery fluid in the cellular substance, or different cavities of the body. Au-

thors have described a number of species of this disease, and they have named them according to the peculiar situation of the fluids. I shall notice but three species in this place; first, that species termed *Anasarca*, in which the water is diffused through the cellular membrane, commonly called dropsy of the skin;—second, *Ascites*, or dropsy of the abdomen;—third, *Hydrothorax*, or dropsy of the chest.

I will mention, in this place, that there are a variety of circumstances which favour the production of these diseases; such as frequent bleeding from the arm, or otherwise; a free use of spirituous liquors, (which never fail to destroy the digestive powers;) disease of the liver, spleen, pancreas, mesentery, and other abdominal viscera; intermittents of long standing, and scarlet fever; exposure for a length of time to a moist atmosphere; laxity of the exhalents; defect in the absorbents, topical weakness, and general debility.

Anasarca.

Symptoms.—Dropsy of the cellular membrane, generally commences in the lower extremities, and first shows itself towards evening with a swelling of the feet and ankles, which by degrees ascends and successively occupies the thighs and trunk of the body. When it has become very general, the internal organs are affected in a similar way; the lungs partake of the affection; the breathing becomes difficult, and is accompanied by cough, and an expectoration of watery fluid; the urine is small in quantity, high coloured, and deposits a reddish sediment: sometimes, however, it is of a pale whey colour, and more copious. There is costiveness, insatiable thirst, a pale dry skin, sallow complexion, torpor, heaviness, cough, and slow fever. The water, sometimes, when the parts are much extended, oozes through the pores of the skin, or raises in the form of small blisters.

Treatment.—The indications of treatment are to palliate or remove the exciting cause of the complaint; then to unload the system of the weight that oppresses it; and, lastly, to re-establish the frame in health and vigor.

If a habit of intemperance, or sedentary life, innutritious food, exposure to a cold and moist atmosphere, or similar causes, have produced the disease, they must be remedied before medical aid can be expected to produce any permanent benefit. When the affection is found to be produced by a defect in some internal organ, alterative doses of medicine afford the greatest prospect of removing it. For this purpose, I have administered a pill, composed of thirty grains of calomel; precipitated sulphate of antimony, thirty grains; gum guaiacum, in powder, three scruples; rub them together, then add as much conserve of roses as will form a mass, divide it into twenty pills, one of which is to be taken at bed time; at the same time purgative and diuretic medicines should be used; as a purgative, black hellebore and gamboge stand highest; a teaspoonful of the tincture of hellebore may be taken twice a day until it purges freely. Two grains of the gamboge may be given twice a day in powder, or formed into a pill by rubbing it up with soap.

As a diuretic, cream of tartar has been a favourite medicine in dropsy, with many celebrated physicians. An ounce of it, mixed with fifteen grains of powdered ginger, may be given twice a day. In cases, however, where there is a copious secretion of pale urine, its use will not be required, but in place of it I have administered the following with advantage: Take of dried squills, in powder, thirty grains; opium, in powder, five grains; cinnamon bark, in powder, one drachm; mix, and divide into ten equal parts, one to be taken three times during the twenty-four hours, after the bowels have been well evacuated. In cases attended with much fever, especially in young persons, I have found the nitrate of potash, taken in doses of ten grains, three times a day, to answer best.

When there is much debility attending the disease, it will be proper, at the same time the above means are being used, to administer some light tonic, and stimulating medicine, such as fifteen or twenty grains of the rust of iron, in combination with two or three grains of piperine, twice a day; but if the patient is young and has considerable strength, and is able to take exercise, it will be most proper to abstain from tonics until the swelling has been removed.

The diet, in all dropsical cases, ought to be nutritious, that food being selected which is easiest of digestion. The aromatic vegetables are also proper, such as garlic, onions, radishes, &c.

Ascites.

Symptoms.—This variety comes on with loss of appetite, stupor, inactivity, dryness of the skin, oppression of the chest, slight cough, diminished urine, costiveness, &c. After these symptoms have existed some time, an enlargement of the abdomen is perceived, which increases gradually until it becomes generally extended.

In this species of dropsy, the water is contained in the cavity of the abdomen, but there is another form, in which the fluid is collected in sacs, formed upon and connected with some one of the abdominal organs, termed *encysted* dropsy. It is seldom attended, in the first instance, with a disordered state of the general system, and is easily distinguished from the former species, on account of its beginning in a particular part of the abdomen, and gradually diffusing itself, the strength and health of the individual being unimpaired, until the bulk and weight of the fluid bring on the constitutional effects, which usually attend the former species from its commencement. At a late period, in both species, the lower extremities generally swell.

Treatment.—The indication and general plan of treatment are precisely the same as have been described under the former head; but when they do not succeed in checking the accumulation of fluid, it is to be removed by tapping. When the water is in the general cavity of the abdomen, relief can often be afforded by this process, and a cure performed. If, therefore, the foregoing remedies fail to arrest the disease, tapping should not be delayed. In fact, it is the opinion of some of our most intelligent physicians, that under these circumstances the operation cannot be performed too soon after a fluctuation is distinctly felt, and the swelling from the quantity has become troublesome, and interferes with the breathing. In this opinion I fully concur, and believe that though the first operation should not succeed, we

shall frequently gain great advantage from it, as waiting a greater length of time would only give the complaint a greater opportunity of weakening the constitution of the patient, and the water would be much more likely to accumulate the second time, than if it was removed, before the sufferer had become so much debilitated.

The medicines which have proved to be the most beneficial, in this division of the disease, are calomel and squills. Sir Astley Cooper says, when speaking of this species of dropsy, "one grain of calomel and three of squills, in powder, may be formed into a pill, or two grains of blue pill, with three of squills, one of these should be administered every night, or every other night, and in the day you should give a mixture, composed of from seven to ten grains of carbonate of ammonia, one drachm of sweet spirit of nitre, twenty drops of tincture of digitalis, and an ounce of camphor-mixture. This draught, given once or twice a day, with one of the above pills at night, will often succeed in restoring a person to health, whose constitution may be considered so broken and faulty, that it may be deemed impossible for him ever to regain a sound state of body. Should the dropsy have arisen from the irritation caused by hard drinking, this practice must be relinquished, or the complaint will not disappear."

This illustrious author and successful practitioner, again remarks, and very appropriately: "Medical treatment, when judiciously pursued, is very often successful in the cure of ascites. In the use of medicine, however, you must take care to direct their influence against the *cause* of the dropsy. Therefore, if the liver is the defective organ, you should endeavour to restore its healthy functions, and in this attempt your efforts will frequently be crowned with success, unless the disease has existed so long a time as completely to have broken up the constitution."

Hydrothorax.

Symptoms.—Dropsy of the chest often comes on with a sense of weakness at the lower end of the breast bone, accompanied by a difficulty of breathing, which is much increased by any exer-

tion, and which is always most considerable during night, when the body is in a horizontal position. Together with these symptoms there is a cough, that is at times dry, but which after a time is attended with an expectoration of thin mucus. There is likewise a paleness of the complexion, and very often a swelling of the feet and legs, together with a considerable degree of thirst, and a diminished flow of urine. Under these appearances, we have just ground to suspect, that there is a collection of water in the chest; but there is several conditions in which the organs of the chest may be, which produce these symptoms, and therefore we must have some more certain criterion to judge by, and this will be the fluctuation of water, being felt in the chest either by the patient himself, or his attendant, on certain motions of the body.

During the progress of the disease, it is no uncommon thing for the patient to feel a numbness, or degree of palsy, in one or both arms, and to be more than ordinarily sensible to cold. With regard to the pulse, it is generally quick at first, but towards the end becomes irregular and intermitting.

Cause.—The causes which give rise to the disease are pretty much the same with those which are productive of the other species of dropsy. In some cases it exists without any other kind of dropsical affection being present, but it prevails very often as a part of more universal dropsy.

Treatment.—The general plan of treatment is the same in this as in the first division of the disease; but squills in this variety of the complaint, is particularly valuable, as it relieves the troublesome cough, and at the same time acts as a diuretic. The best form of giving it in a case of this kind, will be to take of compound squill pill, one scruple and a half; calomel, ten grains; mix them together, and divide into twenty pills, one to be taken twice a day. At the same time five or six grains of the compound powder of ipecacuanha may be taken at bed-time, for the purpose of procuring sleep. Blistering of the chest is of the greatest moment in this species of the complaint, and never should be neglected.

In cases attended with much debility, myrrh and sweet spirit of nitre has appeared to be of great utility in my practice; in the

proportion of ten grains of the former in powder, and one drachm of the latter, to be taken at one dose, and repeated two or three times during the day.

If the above remedies fail, the inhalation of oxygen gas ought to be tried. It has been of use in bad cases.

DYSENTERY, OR FLUX.

⁴ *Symptoms.*—This disease generally commences with a sense of lassitude, want of appetite, nausea, bad taste in the mouth, depressed pulse. slight chills, alternating with flushes of heat, thirst, dry skin, transient pains in the bowels, costiveness, and occasionally diarrhœa. Sometimes the disease comes on suddenly, with griping, mucus, and bloody stools, and tenesmus, without any premonitory symptoms; and this is most apt to be the case, when it arises from causes that act immediately on the mucus membrane of the intestines. In general, the fever is developed before the proper dysenteric symptoms show themselves; sometimes more or less diarrhœa, with griping pains, precede the occurrence of febrile irritation: and occasionally mucus and bloody evacuations, with pain, are the first symptoms.

The fever accompanying dysentery, may be either the simple inflammatory or the typhus. In the latter case, the disease is contagious, and of a dangerous nature.

Cause.—The principal causes are, suppressed perspiration, a damp atmosphere, succeeding to a high temperature; exposure to noxious exhalations and vapours: and especially a specific contagion.

Among the exciting causes of the disease, may be mentioned the immoderate use of unripe fruit, indigestible and unwholesome food; and irritating articles of all kinds received into or generated in the bowels, as hardened fæces, retained in the intestines

a long time. Dr. Cullen says, this is the "cause of the griping, frequent stools, and tenesmus."

Diagnosis.—It is distinguished by the presence of griping, tenesmus, fever, and evacuation of blood. See next subject.

Treatment.—The indications of treatment, at an early stage of the complaint, are, to subdue the inflammation, allay irritation, and to promote a healthy secretion from the skin; and those objects are most easily accomplished by the use of purgatives, blood-letting, calomel, and anodynes.

A very good plan of commencing the treatment, and one which is recommended by a number of the most eminent physicians is, give, immediately after the commencement of the disease, a full dose of salts, or castor oil, with the view of removing the irritating matter, which may be lodged in the bowels, followed in two or three hours with a powder composed of two grains of opium, three of ipecacuanha, and one of calomel, which will have the tendency of allaying the irritation, and at the same time of promoting full perspiration.

If, however, after six or eight hours, the pain and uneasiness of the bowels are severe, especially if the pulse is full and quick, sixteen or twenty ounces of blood should be drawn from the arm, and if the patient is strong and had previous good health, it ought to be repeated after ten or twelve hours if the inflammatory symptoms have not been removed. After this, a large plaster of mustard may be applied over the abdomen, and let remain on the part until redness is produced.

In case the foregoing remedies should fail in putting a stop to the disease, the following will be found a safe and efficacious mode of proceeding. Take of calomel, fifteen grains; ipecacuanha in powder, thirty grains; and powdered opium, ten grains; beat into a mass by adding a sufficient quantity of the syrup of rose, and divide into thirty pills, of which three or four may be taken during the twenty-four hours, according to the urgency of the case; at the same time an ounce of castor oil should be taken every day until the pain is removed.

During the whole course of the disease, mucilaginous drinks, such as solution of gum arabic, flaxseed tea, infusion of slippery elm, or very thin preparations of arrow root, rice water, &c.

should be freely allowed at the commencement of the disease. But in a more advanced stage, and when the weakness is considerable, jellies, and broth made by boiling mutton in water, to which should be added rice flour; should the debility be extreme without any tendency to acute inflammation or pain on pressure; the complaint having been of long standing, a tea-spoonful of the best brandy with a wineglass of luke warm water, may be given every hour until the strength is somewhat recruited. An eminent practitioner speaks much in favour of a little wine in case of extreme debility. He says, "THE DRINK SHOULD BE ALWAYS LUKE-WARM."

In malignant, and in fact in all cases of dysentery, the patient should evacuate in water to which a tea-spoonful or two of the concentrated chloride of lime has been added; this will prevent all smell, and destroy infection.

DIARRHŒA.

Diarrhœa is an affection of the bowels, the characteristic symptoms of which are frequent and often copious liquid evacuations of a feculent character, attended with considerable griping without tenesmus, and generally without febrile irritation.

There are several species of the complaint, the principal of which are the bilious looseness, in which the evacuations are of a bright yellow; the mucus diarrhœa, characterized by a copious secretion of acrid mucus; the serous looseness, in which the secretions are almost entirely liquid; and the lientery, in which the food is passed rapidly without much change.

Cause.—The causes of diarrhœa are very numerous. They may be divided into those which act immediately on the mucus membrane of the bowels, and those which act through the medium of the system. Of the former species are all irritating sub-

stances received into, or generated in, the stomach or intestines; such as irritating and indigestible articles of food and drink; acrid and vitiated secretions from the liver; worms; acid generated in the bowels; unripe fruit, &c. Among the causes of the complaint that affect the bowels through the medium of the system is cold, particularly when applied to the feet or abdomen. Says a very eminent practitioner, when speaking of this cause: "The occurrence of diarrhœa from cold, or the conjoined agency of humidity and cold, depends, no doubt, on the centripetal direction given to the circulation; in consequence of which the liver and capillaries of the mucus membranes of the bowels become engorged with blood, giving rise to a vitiated, or perhaps a superabundant secretion of bile and intestinal mucus, at the same time that the irritability of the bowels is morbidly increased."

Diagnosis.—This disease is distinguished from dysentery by being unattended either with inflammatory symptoms or tenesmus, and by the appearance of the evacuations, which, in diarrhœa, are generally composed of some portion of usual alimentary substance, while in dysentery they are, for the most part, wholly destitute of it, and principally composed of blood and slime.

Treatment.—The principal indications in this disease are, first, to remove as much as possible every source of irritation from the bowels; second, to allay irritability of the mucus membrane of the intestines; and third, to divert the blood from the vessels of the intestinal canal.

At the first onset of the complaint, where there is reason to suspect that the irritation is produced by indigestible articles lodged in the bowels, or the disease is kept up by irritating secretions, recourse must be had to mild purgatives. It must be recollected, however, that this remedy is only to be applied in the early period of the diarrhœa. A grain of calomel given at bedtime, and followed next morning with a table-spoonful of castor oil, or ten or fifteen grains of rhubarb, will in general be sufficient to remove the exciting cause, and frequently to make a cure; but most generally other remedies will be called for, especially in the lientery, or that species of the disease in which the food is passed in the unchanged state. The most efficient medicines will be those which are capable of giving energy to the

digestive organs, such as the rust of iron, in doses of twenty or thirty grains three times a day: small quantities of calomel and rhubarb may also be given at the same time; the fourth of a grain of the former, and two grains of the latter once a day will be sufficient.

In cases attended with a copious secretion of mucus, ipecacuanha in combination with opium, is particularly serviceable; one grain of the former in combination with half a grain of the latter, has been of the greatest utility in my practice, especially in cases of long standing. It may be given three times a day. In fact, I know of no remedy which has a more powerful tendency of determining the circulation to the skin, and thus relieving the internal parts. It also has the effect of giving tone to the bowels.

That variety of diarrhœa termed bilious, in which the evacuations are of clay colour, a little calomel is usually necessary and proper. Two or three grains combined with three or four of rhubarb and half a grain of opium, will be a proper dose, to be given once a day for two or three days.

There is, however, cases of the disease which will be found to resist all the common remedies, and it will become necessary to employ the astringents. I have lately used in instances of this kind the sugar of lead with the happiest results; two grains of this given with half a grain of opium, and the fourth of a grain of ipecacuanha, twice a day, has not failed in my hands to put a stop to the complaint. The spirit of turpentine has likewise removed the disease in several instances where the patients had been labouring under it for years, and had been thought incurable.

From whatever cause a diarrhœa proceeds, the diet should consist of rice boiled with milk, together with preparations of sago, barley, arrow root, &c. Weak tea should be taken as a common drink, and with toast, together occasionally with a small quantity of roast mutton, well seasoned with salt. All unripe or green vegetables, cold drinks, &c. must be carefully avoided.

COLIC.

Writers have divided colic into a number of varieties, but I shall notice only three species in this place, they being the most common, and in truth the only ones, the others being a mere complication of colic and some other affection.

The first, and most common species of the disease which I shall notice, is the one termed by some writers accidental colic, but is more commonly known by the term *flatulent colic*, from the symptoms of indigestion and flatulency which accompany it. Second, *bilious colic*, so termed from the manifest derangement of the biliary organs or liver. Third, that species called *colica pictorum*, or painters' colic from the fact that painters or men who handle lead are subject to it.

Flatulent Colic.

Symptoms.—The first and most common indication of this disease is a sense of distention and uneasiness in the pit of the stomach, or occasionally in the left side near the hip-joint, which is soon followed by a dull, peculiarly distressing and sickening pain in those parts, accompanied with a feeling of tightness or distention of the stomach and bowels. The pain now rapidly increases in violence until it becomes extremely severe. In some cases the pain continues without remission for several hours. More generally, however, they recur in paroxysms, with complete though short intervals of ease. . When the stomach is the principal seat of the distress, large quantities of air is from time to time thrown up, and temporary relief generally immediately follows.

Cause.—This species of colic is produced by various causes, such as crude, indigestible articles of food taken after long fasting, unripe vegetables, as cherries, green corn, &c.

Diagnosis.—Colic is easily distinguished from inflammation of the stomach and bowels, by the cramp or spasmodic contraction of the muscles of the abdomen, which does not take place in inflammation; also by the absence of fever, and by the ease with which the patient submits to pressure; this, indeed, more fre-

quently affords relief. Severe colic, however, after some time, produces inflammation, and of course a change of symptoms.

Treatment.—The indications of treatment in this species of colic, and indeed all others, are to relax the spasm and to evacuate the bowels; and the most powerful remedies for this purpose are the warm bath, warm fomentations, copious warm clysters, opium, stimulating applications to the abdomen, such as mustard plasters, or volatile alkali rubbed on it; purgatives, aromatic, and anti-spasmodic stimulants given internally.

In this species of the disease, however, if the colic pains commence within an hour after taking a full meal, an emetic will be the best remedy to commence with; and for this purpose, ten grains of white vitriol dissolved in a wine-glassful of water, ought to be taken at once, and as soon as it has produced the desired effect, twenty or thirty drops of laudanum, or an aromatic cordial composed of a drachm of aromatic confection, with a table-spoonful of tincture of rhubarb, and a wine-glassful of peppermint WATER, will generally be all that is necessary. But if the pain in the bowels should continue severe, a clyster composed of two drachms of gum assafœtida, one of sal volatile, and half a drachm of laudanum, mixed with a pint of warm water, with a sufficient quantity of starch to give it some consistence, and thrown into the bowels, will seldom fail in giving immediate relief.

Bilious Colic.

Symptoms.—Before the more severe symptoms of this species of the disease come on, the individual generally experiences headache, loss of appetite, bitter taste in the mouth, thirst, sickness at the stomach, and sometimes bilious vomiting. After these symptoms have continued for some time, an acute pain is felt in the bowels, shifting at first from one part of the abdomen to another, though generally most severely felt about the navel. This pain is often extremely acute in the early stage of the complaint, and pressure on the abdomen often gives considerable relief; as the disease advances however, the seat of pain becomes tender to the touch. The nausea and bilious vomiting becomes

more severe; but the patient always experiences temporary relief of his sufferings immediately after a spell of vomiting. The bowels are almost always torpid from the commencement of the complaint. The pulse does not indicate fever at the commencement of the attack; but in a more advanced stage, it becomes quick and strong. When the disease continues longer than two or three days, the skin becomes tinged with a yellowish hue; the feet and hands are generally extremely cold, especially at the time the paroxysm of pain is severe.

Diagnosis.—This species of the disease can easily be distinguished from the former, by its being accompanied with bilious vomiting, and the indisposition previous to the attack. It can be distinguished from bilious fever by its being unaccompanied with febrile symptoms at the commencement.

Treatment.—A majority of the most eminent writers advise the exhibition of purgatives in this species of colic; but the stomach is so extremely irritable in most cases, that medicines of this kind cannot be retained a sufficient length of time to enable them to act on the bowels; and as their evacuation is all-important, measures must be adopted for the purpose of accomplishing this object. It will, therefore, be advisable in the first place, to administer a clyster; one of the best can be formed by dissolving two ounces of epsom salts in a pint of thin starch, to which must be added two ounces of castor oil, and two tea-spoonfuls of laudanum; one half of this ought to be thrown into the bowels at once, and if it does not give relief in fifteen minutes, the other half must be employed. At the same time, however, measures should be taken to allay the sickness and irritation of the stomach, so as to enable the patient to take a cathartic, with a prospect of success, as early as possible; and with this intention in view, I would recommend small doses of calomel, notwithstanding its use is not indicated in the complaint. I have found that half a grain of this medicine given every fifteen minutes, until eight or ten doses were taken, had a much more salutary effect upon the stomach than any thing that could be given, and it has an advantage over all others on account of its being retained in the stomach when nothing else could, those remedies, together with a large mustard plaster applied over the region of the stomach, will subdue the

pain and sickness, at least to such a degree as to enable the sufferer to take some gentle purgative, such as the effervescing saline draught. If the colic continues after the above means have been used for four or five hours, a large fly-plaster should be laid over the abdomen, and let remain on the part until it produces a blister, but no longer; and in case of great tenderness on pressure over the stomach and bowels, more especially if the patient has had previous good health, and the pulse is quick, or beating over eighty beats in a minute, ten ounces of blood should be taken from the arm; but if the patient should be a weak and delicate person, in place of bleeding, large doses of opium, say two grains every two hours, should be given until he feels inclined to sleep; at the same time, flannels wrung out of hot water should be applied to the abdomen, and injections of salts dissolved in water should be administered frequently until the bowels are acted upon.

Colica Pictonum, or Painter's Colic.

Symptoms.—The characteristics of this disease are, obstinate costiveness, with a vomiting of an acrid fluid; pains about the region of the navel, shooting from thence to each side, with excessive violence; strong convulsive spasms in the intestines, and a tendency to a paralysis of the extremities.

Cause.—This species of colic has been attributed to the poison of lead, and this will undoubtedly produce it, and is the cause of its prevalence among glaziers, painters, and those employed in lead works; but though this is a very common cause, it is not the only one, as it is certainly occasionally brought on by long-continued costiveness, an accumulation of acrid bile, and by cold, applied either externally or internally.

Treatment.—When an individual is taken with colic of any kind, he ought to reflect and try to ascertain whether he has been exposed to the influences of lead or not; if he has, there will be but little doubt but the disease has been produced by it; and when it is ascertained to be the cause, large doses of opium should be the first thing resorted to, as experience has proved it to be the most effectual means of relieving the spasmodic pains that

attend the affection, and of preparing the way for the successful operation of subsequent remedies. The patient should, therefore, take immediately from forty to sixty drops of laudanum, in a little cinnamon water, which may be repeated in the course of two hours, if relief be not obtained. When the spasm and pain begins to relax, purgative medicines should be administered, and castor oil in small doses, but often repeated, is one of the best purgatives that can be employed. If the pain returns, and the patient does not feel inclined to sleep, laudanum should again be given in about half the former quantity, and followed with the oil as before. A table-spoonful of it ought to be given every hour until the constipation of the bowels is removed. If the complaint be particularly obstinate, and attended with sickness and vomiting, opium may be combined with calomel in the following proportions, the oil being still occasionally interspersed in smaller doses:

Take of calomel, five grains; opium, ten grains; mix, and divide into ten parts or pills, one to be taken every four or five hours.

Individuals subject to colic should be attentive to their diet, and to the regulation of their bowels, and particularly avoid cold, indigestible or unripe vegetables. Plumbers, painters, and all who are exposed to the fumes of lead, should observe the greatest cleanliness, and always wash their hands and face before taking their meals, and, if possible, change their dress, after leaving their employment. These precautions will often prevent the occurrence of the complaint.

CHOLERA.

The characteristics of this disease is a purging and vomiting of bile, with anxiety, painful gripings, spasms of the abdominal muscles, and those of the calves of the legs. There are two species of the complaint; one is termed *cholera spontanea*, which occurs in the hot season of the year, without any manifest cause. The other, termed *cholera accidentalis*, which is produced by irritating food or drinks. In warm climates, it is met with at all seasons of the year, and its occurrence is very frequent; but in the more northern regions, it is most prevalent in the middle of summer, particularly in the month of August, and the violence of the disease is greater in proportion to the violence of the heat.

Symptoms.—The most frequent symptoms are nausea, pain and distention of the stomach and intestines, quickly succeeded by violent and frequent vomiting, and painful purging of thin and watery or bilious fluid, distressing thirst and heat, followed by cold sweats; a quick, small, and sometimes unequal pulse; great anxiety and extreme restlessness; excruciating spasms of the legs, arms, chest, and abdomen; fainting; sometimes universal convulsions.

Cause.—The disease is most frequently caused, in the mild or cold climate, by suppressed perspiration, particularly by cold or damp applied to the feet; cold, indigestible fruit, or unripe apples, cucumbers, melons, &c.; violent purgatives, such as the quack pills advertised.

But in tropical climates, where the affection is frequently epidemic, and from its malignant character often frightfully destructive of human life, the cause yet remains to be ascertained.

Diagnosis.—When the purging which generally attends cholera is absent, it is distinguished from colic by the symptoms of extreme anxiety, and the spasms of the extremities.

Treatment.—In mild cases of this complaint, all that is generally necessary is to administer diluting and aromatic drinks, such as chicken-water, barley-water, toast-water, &c., to which a few drops of the essence of mint, cinnamon, or tincture of ginger may be added. Dr. Douglass, an eminent European physican, strongly recommends toast-water made by toasting oat-bread, and then boiling it in water, which he declares has never failed to arrest the vomiting. After the irritation of the stomach and bowels has been allayed by this means, the saline mixture in the state of effervescence should be given, (for the manner of preparing it see page 200,) and repeated doses of laudanum must follow, for the purpose of subduing or preventing the spasmodic action; thirty or forty drops may be given every hour in the effervescing draught, or in mint water, or a grain of opium in combination with half a grain of calomel may be exhibited in a pill. This is particularly beneficial in cases attended with severe purging and pain in the bowels; it ought to be repeated every two or three hours until the disease is removed, or the patient feels inclined to sleep.

In the more severe attacks of the disease, especially in warm climates, a more decisive and active course of treatment is necessary. The course pursued by the physicians of India, where cholera prevails at all seasons of the year in its most terrific form, is in the first instance to bleed from the arm to the extent of sixteen or twenty ounces, according to the strength of the patient, and immediately afterwards administer calomel with opium in large doses, generally from fifteen to twenty grains of the former in combination with two grains of the latter. After this, fifty or sixty drops of laudanum is given, if necessary, every two or three hours until the urgency of the symptoms subside. I have seen this treatment employed both in the mild and most severe cases of cholera, but must say that I have never seen any good result from it, especially large bleedings. The most dangerous symptom, and that one which we should try to prevent, is the collapsed stage, and I feel satisfied that its progress is hastened by copious depletion. In fact, this condition of the body is produced in a healthy individual by copious bleeding. If, however, the patient should be very strong, I should not object to

having a few ounces of blood taken, as it might, in some degree, prevent the violent spasms of the muscles. As regards the remainder of the practice, I have no particular objection to it in severe cases; but at the same time it is being employed, irritating applications should be applied to the skin; mustard plasters over the regions of the stomach and bowels; friction with hot brandy to the extremities, and warm bathing.

Should the above remedies fail in relieving the violent symptoms in two or three hours, a clyster prepared by mixing one hundred and fifty drops of laudanum with half a pint of thin starch, lukewarm, should be thrown into the bowels. At the same time the most diffusible stimulants, as the sweet spirit of nitre, spirit of ammonia, camphor, and if there is any appearance of the collapsed stage, brandy ought to be given freely.

DISEASE OF THE HEART.

There is perhaps no subject belonging to the medical science about which there has been more talk of late years, than affections of the heart; and there is no circumstance which has brought greater disgrace upon the profession in this city, than mistaken notions relating to the pathology and treatment of this disease. In fact, it is almost an every-day occurrence with me to meet individuals (when visiting patients who were supposed to be labouring under disease of that organ) who inform me that they had been told ten or fifteen years ago by our great Professor — —, that they had *hypertrophy** of the heart, and could not be cured or expect to live more than six months, yet they got well without medicine; others had been told that they had the disease and must not expect to recover, but for the purpose

* It has become almost as common a term in this city, as enlargement of the heart.

of preventing their dying suddenly, they must have their blood removed as fast as it was formed, or they must not take food to form it; and after persevering in the use of these means for several months, and had got much worse, they commenced their usual mode of living and abstained from bleeding; the result was they recovered.

I hope my professional friends will pardon my condescension in acting the part of a critic in this important matter. I know that I am preposterously incurring the anathemas of a man who has a considerable influence with a certain class of individuals. But the title of my work is, Suggestions to Parents and others, and I consider myself as justifiable in exposing a great man's errors in the profession, as I do in exposing the impositions practised by those poor unfortunate quacks who infest the city. Am I to fold my arms and close my mouth when a man of considerable influence, (acquired more by stratagem than merit,) together with a few followers who have adopted his idle notions, and who consult or have his opinion taken on the most frivolous occasions: pronounces every slight case of palpitation of the heart an incurable case of *hypertrophy* of that organ, and will use his influence in making the sufferers believe that if they take the least exercise in the open air, it will be certain and instantaneous death, when the only cause of the unnatural movements of the heart were produced by a sedentary habit, or want of a pure and open atmosphere? I could relate fifty cases of this kind which have come under my notice within the last two years. They had been incarcerated, fed on bread and water, and had leeches applied to the region of the heart every few days for several months. They were all restored to health excepting two, who were so far reduced by the treatment as to die from its effects. The remedies employed were such as would have suggested themselves to any candid and unprejudiced physician. But to disgrace the science of medicine still more, these noted men will say, when they are informed that certain persons whom they have pronounced incurable, have been restored to health by a different course of treatment from that prescribed by themselves, will unhesitatingly say they have employed some new system of practice, more successful in cases of that nature than the regular mode. I

have thus frequently heard our most respectable and successful practitioners, and teachers, branded with the infamy of adopting some plan which they had not made known, when the whole blame rested with their mistaken or misguided judgment. Their is not one case of palpitation of the heart in a hundred, which is produced by an enlargement of the organ. The unnatural actions of this important viscus, are generally the effect of sympathy: in other words, the supposed affection of the heart is produced by disease in other parts of the body, which do not only derange the actions of the heart, but every other part of the human frame. Says a late popular Professor of this city, and one who was not ashamed to publish his opinions, and notwithstanding he has been in his grave two years, the scientific works which he left the faculty is now imparting comfort to thousands: he had not only the name of a professor, but he was one in reality; and besides, he was a profound author, a successful practitioner, and a virtuous man: "The heart is liable," says he, "to be excited into vehement and tumultuous action by a variety of causes, not immediately connected with lesion or disorder of its structure; and the most alarming instance of this kind often results from an irritation located in some remote part of the system. It is of much consequence, in a practical point of view, to keep, indeed, this well known fact in mind in prescribing for cardiac affections, [affections of the heart.] I have, in several instances, been consulted by persons subject to extremely violent paroxysms of *palpitation*, who were supposed to be labouring under chronic affections of the heart, and who were completely relieved by a course of treatment calculated to restore the healthy condition of the digestive functions and of the liver. When we find paroxysms of palpitation come on, while the patient is quiet, perhaps lying down, without pain in the region of the heart, at the same time that there are symptoms of indigestion, particularly eructations of flatus, there can be but little doubt that the cardiac affection is symptomatic of gastric irritation. Habitual debility and irritation in the digestive organs are particularly apt to give rise to such affections in persons of plethoric and nervous habit of body. I was consulted about eight months ago, by a gentleman of a very nervous temperament and weak digestive powers,

for aid in what he was led to regard as a local affection of the heart. The slightest mental agitation would, occasionally, immediately excite vehement palpitation; and frequently similar paroxysms came on about two hours after taking his meals. He had paid little or no attention to the regulation of his diet, although often disturbed with flatulency, accidity, and other unpleasant sensations in the stomach."

The author goes on to state, that this patient was completely restored by means altogether different to what is used in cases of actual disease of the heart, and further adds, "Irritation, located in other organs, as the kidneys, intestinal canal, uterus, liver, and probably the spleen, sometimes give rise to severe fits of palpitation. They are particularly apt to occur about the age of puberty in young females, or just before the natural secretions take place. Nervous females, more especially those who labour under hysteric affections, are especially subject to palpitations of the heart."

A very interesting article may be found in the "Nouveau Journal de Médecine pour Avril," which proves clearly that actual organic disease of the heart is confined principally to the aged and infirm; but in this city it is generally the young and delicate female that is supposed, or is said to be labouring under affections of the kind.

Authors and others have described and reported a great variety of diseases of the heart. The following are the most popular species: Thickening and enlargement of the organ, commonly termed *hypertrophy* of the heart; attenuation of the parietes of the ventricles; a softness and flabby condition of the structure of the heart; a dilated condition of its cavities; aneurismal sacks of its ventricles; ossification or formation of bone in the valves and other parts. To these may be added gout of the organ. Having lately seen a lady about fifteen years of age, who was reported to have died from that terrific affection; and to increase the list, I will introduce a new species of disease, or at least one which I have not seen in print, notwithstanding it can be made appear to be the most common cause of the unnatural movements of the organ. I will term it *Hemicardia*, or partial paralysis of the heart. I do not say that the heart is exempt from

the above affections; but with the exception of the first and last mentioned they are of rare occurrence, and when they do take place, no remedy could be made available, as they would prove fatal before treatment could take effect. I will trouble the reader with but two species of the disease, they being the most common, and generally under the control of remedies, especially the last mentioned.

Partial Paralysis of the Heart.

Symptoms.—The most prominent indications of partial paralysis of the heart are, a soft, slow, and irregular pulse; the throbbing of the heart is most generally feeble, but often vehement and irregular, sometimes beating a few times so strong as to create a motion of the whole body, and suddenly ceasing, or at least to such an extent as to be imperceptible. The patient is liable to attacks of swooning, which resemble fainting fits, but are of a very different character; he is liable also to spells of suffocative breathing, attended with cold extremities; there is occasionally a flushed countenance, but more frequently a morbid paleness of the face; irregular appetite, and general nervous debility.

Cause.—The cause of this species of disease of the heart is always owing to an inharmonious action of the nerves on the muscular fibres of the organ, and therefore may, like most other affections of the heart, be termed sympathetic.

Its exciting causes are violent emotions of the mind, costiveness, and other diseases of the digestive organs, and exposure to a cold or damp atmosphere, especially if there is the least disease of the spine or spinal marrow in the cervical region. (See the part of the plate represented by the figure 5.)

Diagnosis.—Says a late eminent Professor: "The diagnosis of the disease of the heart is attended with much difficulty." He quotes a passage from Laennec, (a celebrated French physician,) where he "asserts that none of the systems mentioned" as being produced by disease of the heart, "can at all be regarded as thognomonic, or sufficient to indicate disease of the heart, [since they are common to many other affections, and particularly to almost every chronic disease of the lungs]."

This species of the disease may, however, be distinguished by a very common observer from any other affection of the organ, by the mildness of the symptoms, which seldom increase in violence, and by the circumstance of the palpitation or unnatural action of the heart occurring as frequently when the patient is not in motion as when exercising, which is the reverse of what is produced in other affections of the organ.

Treatment.—The indications of treatment in this complaint are altogether different from that which is proper in other affections of the heart; a circumstance which ought to be particularly borne in mind, as the remedies which would be efficacious in other affections of the organ would be very injurious in this species of the disease. The most efficacious remedies in instances of this kind, are tonics and anti-spasmodics, with quietude of mind, regular hours, light meals, pure air, and as much daily exercise as the patient can take conveniently without being fatigued, will almost always procure much relief, and sometimes effect a cure. The best tonics are the carbonate and sulphate of iron, ammoniac of copper, sulphate of quinine, and ipecacuanha. The most useful anti-spasmodics are the extract of hyosciamus, hemlock, and the solution of acetate of morphia.

The proper method at the commencement is to take, during the day, the carbonate of iron, in doses of fifteen or twenty grains twice during the twelve hours, and at the same time one aperient pill every day, or as often as is necessary to regulate the bowels, composed of the compound extract of colocynth, one drachm; compound rhubarb pill, a scruple and a half; castile soap, fifteen grains; oil of juniper, five drops; rub them into a mass, and divide into twenty pills. The exercise should be of the gentlest kind at the commencement of the treatment; sometimes the cold salt water bath taken every morning will be a useful auxiliary, especially if the weather should be oppressively warm. If the carbonate of iron should disagree with the patient, he may take two grains of the sulphate of quinine, made into a pill, once a day, or the ammoniated copper in doses of half a grain twice a day, if it does not produce sickness or pain of the stomach; it can be mixed with powdered gum arabic, and made into a pill, if preferred.

For the purpose of palliating urgent symptoms, such as violent paroxysms of palpitation, or suffocative breathing, the spirit of ammonia may be given in doses of fifteen drops in a wine-glass of water every hour, until relief is procured, or ten grains of the carbonate of ammonia may be rubbed up with an equal weight of bread crumbs, and divided into five pills, one of which can be taken every hour. I know of no remedy so efficacious in palliating the distressing symptoms in this affection; but there is a condition of the stomach which would destroy its effects, and when this is found to be the case, the extract of hyosciamus in pills of one grain may be given twice a day, or the solution of acetate of morphia, made by dissolving one grain in half an ounce of water, of which a tea-spoonful may be given twice or three times a day, but it ought not to be employed if it can conveniently be avoided, as it is apt to produce costiveness, a circumstance which must be prevented.

If the above remedies should not succeed in removing the palpitation in three or four weeks, I would advise the treatment recommended in case of disease of the spinal marrow. (See page 133.) I have not found it to fail in one case out of fifty, which were said to be affections of the heart by those who are supposed to be good judges.

Hypertrophy, or Enlargement of the Heart.

Symptoms.—Says the late eminent Professor and successful practitioner, (already quoted,) when speaking of the symptoms of this disease, (and I would here call the particular attention of those who have been said to be labouring under the affection, to compare their feelings with the symptoms about to be related, which will enable them to form a tolerable correct opinion of the case:—) “The general symptoms are nearly the same in every variety of structural disease of the heart. More or less habitual dyspnœa (difficult breathing) almost universally attends in affections of the kind; and a careful attention to the particular modifications of this symptom, is of great importance in a diagnostic point of view, (Cervisart.) The acts of inspiration are either very quick, and affected more by the action of the ribs than by

the diaphragm, and somewhat wheezing; or the patient breathes as if he had been walking rapidly, and appears to make unusual efforts in filling the lungs; or finally, the respiration is calm, and without any particular effort, but the air does not appear to enter into the lower portion of the lungs. Mental agitation or corporeal exertion, particularly walking, or ascending acclivities or stairs, never fail to bring more or less violent paroxysms of dyspnoea, and in the latter stage of the disease, the most trifling excitements of this kind give rise to extremely distressing spells of suffocative breathing, attended with great weight and constriction in the breast, inexpressible anxiety, a turgid and unusually livid hue of the face, particularly of the lips, which are swollen and purple; distention of the veins in the neck and head, and an expression of extreme distress and suffering in the countenance. These paroxysms of dyspnoea often last but a few minutes, and rarely continue beyond half an hour, and subside rapidly to the ordinary state of respiration. During the early period of the disease, or in cases of a less serious character, the patient is able to lie down, (though rarely with any degree of ease on the right side,) but the sleep is much disturbed by alarming dreams, frequent startings, and spells of palpitation—obliging the patient suddenly to sit up in bed. In violent or inveterate cases, however, the patient is sometimes obliged to remain day and night in a sitting or half sitting posture, every attempt to lie down being immediately followed by the most harassing paroxysms of palpitation of the heart and suffocative breathing. One of the most frequent symptoms of cardiac disease, is irregular action of the heart. Sometimes the heart beats tumultuously and indistinctly, which has been compared to the boiling of water.”

This author, however, in speaking particularly of the symptoms attending hypertrophy or enlargement of the heart, says: “A strong and full pulse, violent beating of the heart against the chest, and a violet or red tint of the face; the patient almost constantly *feels* the action of the heart, though every violent and tumultuous palpitation is less apt to occur in this than in some other affections of the heart.”

Treatment.—When an enlargement of the heart does exist, little can be expected (as I have already stated,) from medical aid. If

the disease is connected with a very full habit of body, the loss of a small quantity of blood may occasionally be of service; but this fulness of habit is almost invariably removed with more beneficial results by a spare diet and purgatives.

Says our worthy author last quoted, when speaking of the treatment of this affection, (and I will remark in this place, that it affords me much greater satisfaction to give the public the opinions of others in a case of this nature, when I concur in them, than my own.) "M. Lænnec observes, that the greater number of practitioners are too much in the habit of despairing of success in cases of this kind, and therefore content themselves with attacking such urgent symptoms as may arise in its progress; and yet I believe there is no one who has not succeeded, every now and then, even by this symptomatising treatment, in prolonging for fifteen or twenty years the lives of individuals affected with organic disease of the heart. Organic affections of the heart are, indeed, much more generally regarded as mere subjects of pathological speculation, than as diseases, in some instances at least, susceptible of cure or melioration by proper remedial management. We think such an estimate, says Dr. Johnston, not only a false one, but pernicious in its consequences both to the patient and practitioner."

He further observes: "A reduction of the ordinary quantity of food, is indispensable to full success in cases of this kind. The good effects of blood-letting will be but temporary, and in general wholly inadequate, unless the rapid generation of new blood be at the same time obviated, by putting the patient on a very spare and diminished allowance of diet. Lænnec advises that the food should be diminished to one half, at least, of the ordinary quantity taken by the patient; and it should consist of mild and unirritating articles of diet, at the same time that the mass of the blood is kept down by repeated bleedings. All kinds of stimulating liquids must be rigidly forbidden."

I would again advise individuals, and particularly physicians, that even should the symptoms be severe and obstinate, not to be hasty in deciding upon any positive disease of the heart, or any of the organs closely associated with it, nor upon any incurable cause whatever; for it has not unfrequently happened, that

a palpitation of long standing, which has been regarded as a dangerous species of the disease, has gradually subsided. Dr. Cullen, of Edinburgh, has given a striking case in confirmation of this remark, in the eighth chapter of the second part of his *Materia Medica*. "A gentleman," says he, "pretty well advanced in life, was frequently attacked with palpitation of his heart, which, by degrees, increased both in frequency and violence, and thus continued for two or three years. As the patient was a man of the profession, he was visited by many physicians, who were unanimously of opinion that the disease depended upon an organic affection of the heart, and considered it as absolutely incurable. The disease, however, after some years, gradually abated both in its frequency and violence, and at length ceased altogether; and since that time, for the space of seven or eight years, the gentleman has remained in perfect health without the slightest symptoms of his former complaint."

I could relate numerous cases of recovery from this disease in this city, after the patients had been given over, would my limits permit. Dr. Baille, of Europe, in speaking of disease of the heart, observes, that whatever improves the digestion, and renders the constitution less irritable, will be of use in mitigating the increased pulsation, and that it is useful to remove the patient's anxiety respecting this disease, where it can be properly done. Therefore the best treatment, especially in persons of delicate constitution, is that recommended for INDIGESTION.

EPILEPSY, OR FALLING FITS.

Of all the desperate maladies which I have described in this volume, there is none, perhaps, more deplorable and mortifying to the unfortunate sufferer himself or his friends, than epilepsy. It is an affection, whether considered in its immediate phenomena

or in its remote consequences, distressing indeed, as it often impairs the understanding, and not unfrequently abolishes the natural powers to such a degree as to induce a state of suffering infinitely more lamentable than death itself. And notwithstanding its frightful and deplorable nature, nothing has been discovered by modern pathologists in relation to its nature or cause.—Fortunately, however, we find its character and treatment fully discussed in the works of the Greek and Roman physicians; and even Hippocrates, who lived in the age of superstition, has not failed to describe its nature, and absurd as were the ideas of some in relation to its origin* at that day, the remedies employed were more scientific and far less absurd than those recommended by some of our doctors at the present time in this city. Says a late worthy Professor in one of our medical institutions of this city, when speaking of the treatment used by medical men for the removal of epilepsy, “There is perhaps, no disease in which medical treatment is so frequently empirical, as the one now under consideration. The causes are so multifarious, and generally so obscure, or so wholly beyond our cognizance, that we are seldom enabled to prescribe with any degree of reliance upon general and rational therapeutic principles. In this state of perplexity and uncertainty, we have often no other alternative left us than to administer remedies without being able to give any other reason for their use than that they have been occasionally successfully employed.”

The conclusions we are led to draw from this worthy Professor’s remarks are, that the nature of the disease is so completely misunderstood, that it is not known what medicine would be most likely to be beneficial, and when a cure has been made, it has been a mere accidental circumstance.

Dr. Dewees, formerly professor in the University of Pennsylvania, when speaking of the treatment of this disease, uses the following language: “What plan of treatment,” says he, “has ever succeeded in curing epilepsy? We regret to answer, none. Has epilepsy ever been cured? We fear we shall but declare a most unwholesome truism, when we also answer this in the nega-

* It being generally regarded as inflicted by the gods.

tive." This being the opinion of one of the most influential Professors who has had the honour of lecturing in the University during the last thirty years, and a man who has had the instruction of more medical youth than any other in the United States, and who has stamped his medical prejudices on the minds of most of the physicians in this city. It will be readily perceived how it has happened that there has been so few patients cured of epilepsy during the last fifteen or twenty years; but notwithstanding this once popular Professor and his numerous followers now practicing in this city, believe epilepsy to be incurable, they have their regular routine of remedies which they use in all cases, and will insist upon their patients taking the daily dose, and visit them regularly, notwithstanding they, or at least their instructor, says the disease cannot be removed. I have at present thirty or forty cases of epilepsy in this city and its vicinity, several of which have been visited almost daily by their physicians during ten years, and have not neglected their daily dose during that length of time. Several poor families have expended all they have made for medicines during six or eight years, in hopes of having their friends restored to health, but without effect. I have ascertained that the principal medicines employed in those cases have been musk, assaftetida, &c., together with an occasional bleeding from the arm, or by applying leeches to the temples, and for the purpose of paliating at the time of an attack, copious depletion by blood-letting has been employed much to the injury of the sufferer.

This being the unimproved condition of science relating to the nature and treatment of this affection, may I not at least ask my medical friends in the country, (who are not obliged to adopt selfish and dishonest means for the purpose of procuring a livelihood,) to recommend a plan of treatment to patients who they may have under their care, which I have found to be effectual in a great number of cases, and more particularly when they find that the remedies recommended have been discovered by a scientific investigation of the subject. The principal part of the physicians in Philadelphia and its vicinity, who are not governed by prejudice or selfish motives, have not only adopted the treatment, but have advised their patients to apply it themselves.

There is, however, a number of medical men in this city who I cannot expect to prescribe or recommend a system which would interfere very seriously with their interest as regards pecuniary matters. There being in this, and no doubt other cities, doctors who are obliged to use every means of intrigue and fraud for the purpose of procuring a living for their families, and keeping up a brilliant appearance, (things absolutely indispensable in Philadelphia at this time, on account of the citizens judging of the amount of intellect possessed by a physician, from the number of horses and the size of the carriage which it requires to convey him to their dwellings, perhaps not fifty steps from his office,) it would be ungenerous in me to expect these men to adopt a practice in this supposed incurable affection, and many others, which would deprive them of the means of retaining the confidence of their employers. But I may be asked by some of my readers, why I did not entitle my work *Suggestions to Physicians*, in place of *Parents* and others? My answer is briefly the following: There have been a number of medical works published by the most celebrated French, German, Greek, and English physicians, such for instance as Pinel, Magundy, Cuviere, Player, Pritchard, and a host of others, who have come to a similar conclusion in regard to the nature and treatment of epilepsy that I have, and their works have been permitted to lie mouldering on the shelves of our bookstores untouched. In short, I have found physicians much slower at receiving hints than afflicted individuals; and if diseased persons do not goad medical men to their duty, they will find that it will not be performed. I may be told, however, by some unfortunate epileptic, that he has not sufficient proof of the disease ever having been removed to warrant him in persevering with remedies.—Professor Dewees has said that it cannot be cured, and his opinion is more to be relied upon than mine. I must confess that this is good reasoning, and I should be much pleased to hear it advanced in every instance where individuals are improperly advised to swallow drugs; but I must inform my unfortunate friend, that notwithstanding the Professor and his followers say epilepsy is incurable, they administer much more medicine than I would have him to use for the purpose of removing the complaint; and if I could

produce no other proof in relation to the successful employment of remedies in the disease, than that it has been cured in a large number of instances by the treatment which I have recommended, the patient would have ample reason to doubt its curability; and for the purpose of convincing the reader that the disease has been cured, and to prevent prejudiced and designing medical men taking advantage of this circumstance, I will insert the opinions of several eminent European physicians, whose characters must be well known to every intelligent man in the profession.

Dr. Cullen, the celebrated Professor at Edinburgh, speaks much in favour of a remedy which he employed in a number of cases.

Dr. Bake says, when speaking of its use, "It seldom fails to cure epilepsy; never, if the disease be idiopathic,* and the patient not exhausted."

"M. Locker administered a very simple remedy in the Hospital at St. Mark, to a great many epileptic patients, and found it successful.

Dr. Prichard, of Bristol, England, very properly remarks, when speaking of a remedy which I have found useful; "It should," says he, "never be neglected in this disease. It is frequently a valuable adjunct to other medicines, and is sometimes effectual alone."

A remedy for epilepsy has lately been tried by Dr. Burdach, of Trieval, and Professor Hufeland, of Berlin. The last mentioned, out of ten cases, succeeded in curing three, and three were greatly relieved.

Authors have described several species of epilepsy. I will, however, make no distinction, excepting in the treatment proper in the young and delicate, or the strong and aged.

Symptoms.

The most common symptoms attending this complaint are, it generally makes its attacks suddenly; the patient falls at once to the ground in a state of utter insensibility; sometimes they are preceded by certain premonitory symptoms, such as languor,

* "A primary disease, not depending on another."

pain or giddiness in the head, drowsiness, dimness of sight, ringing in the ears, &c. &c. In the fit, the involuntary muscular power is often excessive; the body is bent forward, or drawn backward with great force; the eyes roll furiously; the lips are convulsed, and covered with a frothy saliva; the tongue is thrust violently from the mouth; the pulse is irregular; the breathing oppressed, and occasionally highly laborious; and in some cases, bilious matter in large quantities is ejected from the stomach. These symptoms, sooner or later, gradually give way, and the unhappy sufferer falls into a profound sleep.

The paroxysms vary greatly in degree, duration, and period of return, in different cases.

Cause.

The causes of epilepsy are exceedingly various, but the most common existing cause is an inharmonious action of the nervous system; and the great want of success which has attended the practice of physicians in this city, appears to me to be a want of a proper knowledge of the nervous system, and attributing all its derangement to the brain, an organ which has little or nothing to do in the production of the disease. I feel sorry that my limits will not permit me to enter into a scientific explanation of this cause, as it might induce some of our medical men who are sceptical in relation to the curability of the disease, to investigate the subject themselves. I will introduce one short extract relating to the nature of the existing cause, merely as a suggestion. Says M. Flourens, when speaking of the properties of the nervous system, "It is surprising to see a pigeon, in proportion as it loses its cerebellum," *the brain*, "lose gradually, first, the power of feeling, then the power of walking, and lastly, that of standing upright. Even this last power is lost by degrees: the animal, at first, cannot stand steadily on its legs; its feet then will no longer sustain it; at last a fixed position becomes impossible. It makes useless efforts to arrive at a certain position; and yet, when from fatigue it seems desirous of taking some rest, its senses are so acute, that the least motion makes its exertions recommence; but they are without the smallest mixture of convulsive motions, as

long as neither the SPINAL MARROW nor tubercles are touched." This, I presume, will be sufficient to convince every unprejudiced mind, that injury done to the brain will not produce epilepsy. In other words, injury or disease of the brain is not the cause (as many suppose,) of convulsions, or fits of any kind. But say some of our talented sceptics in this city, the patient falling into a profound sleep after the attack, and there being symptoms of congestion of the brain, is an evidence that epilepsy is produced by disease there. I do not think this opinion worth refuting, or I could, in a very few words, make it appear evident that the disposition to sleep, and symptoms of congestion following epilepsy, are effects produced on the brain by the disease, and not the cause of it. And it will be indispensably necessary for the physician who has been directing his remedies to the brain for the purpose of curing epilepsy, to look to some other quarter for its origin, if he wishes to be successful; and I will advise him to examine the roots or origin of the spinal nerves, where he will find the general existing cause of the affection.

The exciting causes in adults, are sudden fright, excessive grief, great loss of blood, the suppression of accustomed discharges, or cutaneous eruptions; the action of mineral poisons, excess in drinking, and the use of quack pills. In children, the disease is often brought into action by the use of indigestible articles of food, irritation produced by worms, and in short, all substances which are capable of producing an irritation in the nervous extremities of the mucus membranes of the internal parts.

Distinction.

The affections with which epilepsy is most liable to be confounded, are HYSTERIA and APOPLEXY; the former may be readily known by the involuntary laughing or weeping, and the sensation of a ball or globe rising in the throat, also, in hysteric convulsions, the countenance is less livid and distorted than in epilepsy; and there is seldom any foaming at the mouth, or profuse discharge of saliva, nor does it terminate in heavy sleep. For the signs distinguishing it from apoplexy. see that article on page 363, and for common convulsions of children, see page 24.

Treatment.

The treatment of epilepsy, notwithstanding its desperate nature, is very simple. I am aware, however, that some physicians go upon the principle that desperate diseases require desperate remedies, and for the purpose of diverting or deceiving the unfortunate sufferer, they will order the most noxious drugs to be taken in large quantities. In all cases of the complaint, whether in the young or old, strong or weak, the treatment which I have recommended for the removal of disease of the spinal marrow, (see page 134,) must be used, and it will be found effectual in most cases, without the employment of any other means, providing it be properly applied and persevered in. There are, however, other means which have been used by physicians with success, and I have occasionally employed them with advantage. The most powerful of these are, the ammoniate of copper, and flowers of zinc. They may be used at the same time the above mentioned treatment is being employed, in the following manner: Take of ammoniate of copper, twelve grains; bread crumbs, and mucilage of gum arabic, a sufficient quantity to form it into a mass, which is to be divided into forty pills. In the beginning, one of these is to be taken three times a day, and gradually increased to two, and even three thrice a day.

The flowers of zinc were in high reputation in epilepsy and other spasmodic complaints: but says a successful European surgeon: "They have suffered of late like every other medicine, from druggists having frequently sold a bad article." Its dose is three grains made into a pill, with extract of gentian, taken twice or three times a day, which may be increased to six or seven grains. I could describe an almost incurable number of remedies which have been used by different authors with some success, but think the above sufficient. I will, however, observe that it is of the greatest moment to remove or prevent as far as possible the exciting cause, especially in children; all irritating and indigestible articles of food and drink should be carefully avoided. If worms are suspected to be in existence, means must be used for their expulsion. I will also remark, that depletion by

any means in epilepsy is improper, and should never be employed, except in strong persons of a full habit, and where the fit continues an unusual length of time, or returns in rapid succession.

In cases of the disease in young children, I would always recommend the remedies to be used in case of common fits. (See page 24.) If they do not put a stop to the complaint in a reasonable length of time, the above remedies are to be employed, but RECOLLECT, in proportion to the age and strength of the patient.

APOPLEXY.

An apoplectic fit consists in a sudden suspension of the powers of sense and motion, from pressure made upon the brain by an effusion of blood or seron.

Symptoms.—Individuals are sometimes warned of the approach of apoplexy, by a dull pain in the head, accompanied by a sense of lassitude; giddy or drowsy feeling of the head; fulness and redness of the face and eyes; obscurity of sight; bleeding from the nose; faltering in the speech; ringing in the ears, and loss of memory. But its attack is more frequently sudden, and the patient falls to the ground with scarcely any warning, and lies as if in a deep sleep, from which he cannot be roused. In this state, his breathing is laborious, and generally accompanied by stertor, the face is red and puffed: the veins of the head and neck are distended; the head is often warmer than other parts of the body; the eyes are prominent, blood-shot, sometimes half open, but more frequently quite closed, the pupil dilated, and a frothy saliva is almost always excreted from the mouth; the pulse is at first regular, strong, full, and slow, but soon becomes weak, frequent, irregular, and intermitting.

The duration of a fit of apoplexy is various, but it generally

lasts from eight to twenty-four hours, and occasionally to thirty, or still longer.

Authors have described two varieties of this disease, one attended with the symptoms above described; the other with a feeble pulse and pale countenance. They say the former usually occurs in persons of a full plethoric habit, and considerable energy and strength; the latter, for the most part in the old, phlegmatic and feeble. But I am inclined to believe that there is but one species of the affection, and that the last mentioned is a disease altogether different in character. Says an eminent European surgeon, when speaking of this malady, "It is very doubtful whether the sudden deaths we so frequently hear of, ought to be ascribed, as is common, to apoplectic seizures, since genuine apoplexy very seldom destroys life in less than twenty-four hours. They appear to depend rather upon some VIOLENT AFFECTION OF THE HEART." I believe them generally to be owing to a complete paralysis of that organ. (See partial paralysis of the heart, page 350.)

Cause.—Whatever operates in determining a great quantity of blood to the head, or in impeding its free return from it, may produce over distention of the blood-vessels, or effusion in the brain, such as ligatures about the neck, the suppression of accustomed evacuations, &c.; also, violent passions of the mind, the excessive use of intoxicating liquors, and fits of epilepsy not unfrequently produce the disease.

This affection may occur at any period of life, but is most frequent between the ages of forty and sixty, especially in persons of a plethoric habit, who have short necks and are indolent, and who indulge much in eating, drinking, and sleeping.

Diagnosis.—Apoplexy is readily distinguished from epilepsy or falling fits, by the last mentioned disease being accompanied with convulsive movements and contractions of the muscles of the extremities, circumstances which never occur in the former complaint.

It may also be distinguished from fits of intoxication by the smell of the breath, it in general being tainted with the intoxicating liquor; and when in this condition, the individual may in some degree be roused by inflicting pain, and applying a strong stimulant to his nostrils.

Treatment.—I would remark in this place, that it is much more easier for a person to prevent an attack of apoplexy, than to remove it after it has taken place. He should, therefore, strictly avoid the above mentioned causes, and particularly guard against a constipated condition of the bowels.

All that can be done by way of treatment on the occurrence of the disease in the vigorous, or persons of a full habit, and particularly if there have been symptoms of fulness of the brain previous to the attack, is to bleed freely from the arm or jugular vein. The most effectual plan is to support the patient in the sitting position, after which a large vein should be opened in the arm, and the blood permitted to flow without intermission as long as it will, and at the same time fifteen or twenty leeches should be applied to the temples. After this, the patient should be kept as much as possible in that position, and cloths wet with cold water kept constantly applied to the head. It will also be proper at this time to administer a copious purgative clyster. I have seen decided benefit derived from the following: mix half an ounce of the oil of turpentine, and two ounces of olive oil, with half a pint of thin starch; this is to be thrown into the bowels at once, and followed in half an hour, if it does not produce effect, by one ounce of epsom salts dissolved in half a pint of warm water.

In cases of the disease in the weak or infirm, unaccompanied with evident symptoms of congestion of the brain, the countenance being pale, eyes sunk, and especially if the head feels colder to the touch than other parts of the body, local bleeding by cupping and leeching, will be preferable to that of the lancet. The purgative clysters will be proper, and if possible, the patient should be made to swallow ten or fifteen drops of the spirit of ammonia, which will have the tendency of removing the turbid action of the circulation. If, however, the patient cannot swallow, a teaspoonful of the spirit of ammonia may be mixed with the purgative clyster above mentioned. It will also be proper to apply friction freely to every part of the body, and mustard plasters to the extremities. After this treatment has been used, and the patient appears in some degree roused from his torpid condition, but appears heavy and dull, a large fly plaster should be applied along the upper half of the spine and suffered to remain on the part until a blister is produced.

It is extremely doubtful, as I have already made it appear, whether a genuine attack of apoplexy ever takes place in a delicate or enfeebled constitution, and as there are conditions of the body which do produce almost the same symptoms as the above stated, but require a very opposite plan of treatment, I think it much more safe where there is any doubt, to apply remedies calculated to remove congestion of the heart, such as friction, external irritating applications, &c., especially as the last mentioned remedies would be serviceable in a case of apoplexia, and the former treatment or copious depletion extremely hazardous in a case of congestion of the heart, and more particularly when we call to mind the uncertainty of success which attends the most vigorous treatment in the former disease, and the probability of success which attends well directed remedies in the latter affliction.

Those who, from their constitutional make, are otherwise predisposed to the malady, ought to be very attentive in observing a mild spare diet, and regular habits, they should rise and retire early, take very little strong drink, especially avoiding malt liquors, keep an open state of the bowels, and use a great deal of active exercise in the open air. Says an eminent surgeon when speaking of the best manner of preventing the disease, "A seton in the nape of the neck, or between the SHOULDERS, is often a valuable preventative, and highly merits the attention of those who have had an attack of apoplexy.

TETANUS, OR LOCK-JAW.

TETANUS is a violent and extensive contraction or spasm of the muscles, accompanied with a tense and inflexible condition of the parts affected. The excessive contraction of the muscles is kept up without any intervals of complete relief from the spasm, mostly

without any relaxation whatever: but the power of sensation and intellect are unimpaired.

Either the whole or a part of the body may be affected. Sometimes only the *flexor* or muscles of the front part of the body are contracted, which causes the sufferer to bend forward; sometimes only the *extensor* or muscles of the back are attacked, when it is as forcibly bent backwards; at other times, both sets of muscles are involved, preventing the individual bending in any direction. When the spasm is confined to the muscles of the jaw or throat, it is called lock-jaw.

Cause.—The exciting cause of this complaint, are wounds or mechanical injuries. The disease is particularly apt to follow incisions in which a nerve is partly divided or lacerated without being completely separated. The insertion of an artificial tooth, including a nerve in a ligature passed round an artery, amputation, the extirpation of tumours, fractures, gun-shot wounds, cutting corns on the feet too closely; in short, all kinds of incised, punctured, lacerated wounds, however trivial, may, when the nervous system is in an irritable condition, give rise to the affection. The disease is also sometimes produced by a disordered state of the general health, unattended with any accident whatever.

Symptoms.—It is of the greatest importance that individuals generally should be acquainted with the nature and symptoms of this disease, so as to be able at once to administer the proper remedy, in case of spasms or pain following a wound of any kind, on account of its being of the greatest importance to apply the remedies at the commencement of the attack. Generally speaking, the commencement of the disease is announced by a sensation of stiffness about the neck, and difficulty in swallowing; there is also frequently pain at the lower part of the breast-bone, extending backwards to the spine; after this state of things has been in existence a shorter or longer time, the muscles of the jaws begin to stiffen. At first, this rigidity is not so great as to prevent the patient from opening his mouth to a considerable extent; it increases, however, until the teeth of the upper and lower jaws are immovably pressed against each other. As the disease advances, the pain about the stomach also increases, and the mus-

cles of the abdomen begin to contract and generally soon followed by exceedingly violent paroxysms, recurring every ten or fifteen minutes, alternately succeeded by powerful spasmodic retractions of the head, and a rigid contraction of almost every muscle of the body. The muscles of the chest and throat are also at this time violently and powerfully contracted; the arms and legs forcibly extended; the shoulders thrust forwards; the abdominal muscles firmly retracted against the viscera; and the whole frame thrown into a most extorted and unyielding state of tonic spasm.

Treatment.—As this disease is exceedingly apt to follow punctures when inflicted on certain parts of the body, especially the palms of the hands or soles of the feet when occurring in irritable subjects, I consider it of importance to apply means to prevent its taking place. With this object in view, I would advise in case of a deep puncture in the sole of the foot or palm of the hand, to apply some irritating application to the wound as soon as possible, with the intention of producing slight inflammation in the wound. For this purpose the lunar caustic, or a small fly plaster may be applied to it, or a strong lie poultice kept in contact with the part, will answer very well. Some writers recommend the wound to be probed with a red hot iron; this, I think, would be rather severe, (notwithstanding authors agree, that the more inflammation there is in the injured part, the less will be the liability to tetanus.) However, if symptoms of the complaint were to commence shortly after the occurrence of the accident in a part where it would be dangerous to enlarge the puncture, I would not hesitate to introduce a red hot probe, and immediately after apply a warm poultice of bread and milk. At the commencement of the disease, the most proper mode of procedure is, to administer large and frequent doses of opium, both in its natural state and in the form of tincture. Thirty drops of the tincture and one grain of opium, in the form of a pill, with a grain of calomel, will be the proper dose for an adult who has not been in the habit of using it; this may be given every two hours until the patient feels inclined to sleep, or the spasm is removed. If opium is known to disagree with the individual, camphor may be used in its place, either in the form of tincture or the mixture, (for its preparation,

see page 219,) twenty drops of the former, or one tablespoonful of the latter, may be given every fifteen minutes, until relief is obtained. At the same time mild purgatives are to be given; and a very proper one can be made by mixing twenty grains of rhubarb, with eight grains of the super-sulphate of potash. In addition to these means, friction with heated spirits may be applied to the extremities and over the region of the stomach and bowels, and cups or applications of mustard to the back, particularly along the region of the spine. Some authors are of the opinion that the disease is produced by inflammation of the spinal marrow; but I believe the marks of inflammation which they have discovered, is more an effect of the disease than the cause. Writers recommend cold bathing. It has not appeared applicable to tetanus arising from wounds, and in no case should it be employed when the heat of the body is below the natural standard. It may be used with advantage when the disease occurs in hot climates, especially when it arises from other causes than a wound.

Frequently the patient is unable to swallow, and it will become necessary to administer clysters. Dr. O'Brien, of Ireland, says, he has found an injection of tobacco infusion of great value, in several cases. A drachm of this substance, or a drachm of opium, may be boiled a few minutes, in a pint of water, to which may be added a sufficient quantity of starch to give it some consistence, one half of which may be thrown into the bowels at once, and the remainder in an hour or two if the individual is not relieved.

TIC DOULOUREUX.

(*Neuralgia.*)

THIS very painful affection has become very prevalent in this country, as have all other nervous affections, and it appears evident that the causes which are capable of producing nervous diseases of any kind, may also produce this one.

Authors have divided neuralgia into different species; but I shall make no distinction in this place, as they are all benefited by the same remedies. It may be proper to remark, however, that this affection is often mistaken by inattentive or ignorant practitioners, for other painful diseases, and *vice versa*, which is an unfortunate circumstance, on account of the remedies found effectual in the removal of tic douloureux, being altogether improper in many other painful complaints, as rheumatism, gout, and pains produced by inflammation. I am extremely sorry in having to say, that many of the physicians of this city are in the habit of treating painful affections of the different parts of the body, excepting the face, for any and every thing but neuralgia, supposing, as they do, that it does not attack other parts; this is the reason why they have not been able to remove pains located in the lower extremities; they have treated them as gout or rheumatism, when they were of a very different character. I could substantiate this assertion by cases and quotations from the most respectable authors, would my limits permit. One eminent European surgeon says, "It is my opinion, that nine out of ten of those UNFORTUNATE YOUNG WOMEN WHO HAVE BEEN DOCTORED OF LATE YEARS FOR SPINAL DISEASES, HAVE REALLY LABOURED UNDER NOTHING BUT NEURALGIA IN THE BACK." In another place he asserts that many painful affections and determinations to the head, are of a neuralgic character, "AND THAT THE LANCET, LEECHES, AND SCARIFICATORS, ARE NOT SELDOM PUT IN REQUISITION, WHEN THEY MIGHT SAFELY BE DISPENSED WITH." He further remarks, "The public then considered it a new disease, and still think it a rare one: but it is neither new nor rare. The term alone is new." He accounts for its supposed rarity in the following way. "To be noticed as a case of this disease, the pain must be excessive, and must also be limited to a particular part of the face," which is unfortunate for many; "and further, it must be found in the opulent, or in those who are little accustomed or willing to bear pain, fly to physic for relief; and thus call attention to themselves and their cases. There are thousands who suffer from it, under forms less marked, and thousands in the middling and lower classes, who endure it, even in its worst forms, but of whom the public never hear."

Symptoms.—The pain in neuralgic affections, when situated in parts of dense structure, such as the head, face, hands, and lower extremities, is extremely severe, and darts with the rapidity of electricity from its more fixed point along the course of the nerves. It comes on generally in sudden paroxysms, with longer or shorter intervals of more or less complete freedom from suffering. Sometimes, however, considerable pain is felt throughout the whole paroxysm, with frequent transitory shocks of acute pain so exquisitely severe as to cause a temporary loss of reason. Frequently, considerable soreness is felt in the affected part after the subsidence of the acute neuralgia.

Cause.—Dr. Macculloch strenuously insists on this disease being produced by impure air, or by that state of the atmosphere which is capable of producing agues, and there is no doubt in my mind but that neuralgic affections are often produced by this cause. It is manifest, however, from the many cases which have occurred within the last three or four years, that it may be produced by a variety of very distinct causes, some of them of a general, and others of a strictly local character. Very frequently it appears to be dependent on a morbid irritability, and irritation in the intestinal canal; and this is probably most commonly the case when the affection occurs in the nerves of the breast or about the heart.

The occurrence of neuralgia from mechanical injury of the nerves, is by no means uncommon. In many instances of this kind, the pain is seated at a distance from the part where the primary irritation or injury was inflicted; but in others the affection is located immediately in the injured nervous ramifications. Sir Henry Hallford very justly remarks in his medical work, that facial neuralgia, or *tic douloureux* in the face, is often produced by disease of the bones. I believe this to be the most frequent cause of the disease, and the want of success which has attended the endeavours of physicians to remove it, has been owing to the want of a thorough knowledge of its location or cause.

Diagnosis.—There is in general very little difficulty in distinguishing neuralgia from other painful affections. The pain, as has been stated, is darting, extremely acute, and occurring in paroxysms, usually of short duration. These circumstances, to-

gether with the certainty which the slightest touch or motion of the affected part has to produce a recurrence of the pain, and the entire absence of swelling or inflammation, and usually of heat in the part, and, finally, the transient radiation of the pain along the course of the nerves, are sufficient to distinguish this disease from others of similar character.

Treatment.—The treatment of this disease must be adapted to the various causes. A case of neuralgia produced by local injury of the nerve, will not be likely to yield to the treatment that would be required for one which arises from the influence of an unhealthy atmosphere, and an instance depending on this latter cause, will perhaps yield to remedies that would fail in one which was produced by disorder of the stomach, and general morbid irritability of the system. Considerable reliance has been placed by some physicians, on dividing the affected nerve; but although no inconsiderable number of cases have been reported where this operation effected a cure, it is but seldom that it can be resorted to, on account of the number and situation of the affected nervous ramifications; and where the disease depends on a sympathetic irritation, or a local injury nearer the origin of the nerve than can be reached with the knife, there would be but little chance of advantage from an operation.

In recent cases depending on a constitutional cause, where the attacks recur periodically, the proper course will be to remove the disordered state of the stomach and bowels, by appropriate purgatives. After this has been accomplished, tonic medicines must be administered. Dr. Macculloch, whose experience in this disease was very great, says, that the Peruvian bark and arsenic is the most effectual remedies in this species of the disease; and this observation is confirmed by the experience of others. I have found quinine, or the extract of *Peruvian bark*, to answer much better in a number of cases which have come under my care, than the bark itself, which has in substance to be taken in large doses, and will often produce irritation of the stomach, and of course aggravate the disease. Two grains of quinine, or three of the extract of *Peruvian bark*, may be taken three times a day, made into a pill, or mixed with any convenient article, as preserves, &c. I have also used the CARBONATE OF IRON with great

success; it ought to be given in doses of about thirty grains, three times a day. If it produces costiveness, which is the only bad effect arising from its administration, it may be combined with eight or ten grains of rhubarb and the fourth of a grain of calomel, as often as appears necessary. This remedy has been used by a great number of the most eminent European physicians, with the happiest results.

In cases of the disease located in the internal parts, erroneously termed *gastralgia*, but which is purely neuralgia, a variety of remedies have been recommended; but they have seldom afforded more than temporary relief. Opium, in full doses, will generally produce perfect ease for a time. I consider its use, however, more to be dreaded, than the disease itself, and it is extremely improper for physicians to recommend or prescribe it, knowing, as they must, that it is certain to render the nerves more irritable after its effects have subsided. My plan in instances of this kind has been, to ascertain the origin of the affected nerve, and apply the remedy to that part. It can generally be found about the roots of the spinal nerves, which originate in the spinal marrow, opposite to the heart, or whatever internal organ may be affected, (see the plate exhibiting the nerves in a diseased condition.) The remedies I have found effectual in cases of this nature, will be found on page 134, and if they are applied freely, they will be found to answer the purpose.

A case of neuralgia of the face is related by Mr. Beddingfield, in which the application of cerussa, with the view of paralysing the affected nerve, proved successful. The case had formerly been treated by Sir Astley Cooper, and had resisted every remedy employed. Two scruples of the cerussa, formed into an ointment, were rubbed on the affected cheek every morning, about an hour before the attack was expected. By continuing this application daily for a month, the disease was completely removed.

I have applied this remedy frequently with decided advantage, but do not consider it by any means so effectual as that recommended on page 134.

In case of the neuralgia occurring in consequence of a local injury, such as a wound or bruise, the *narcotics* will be most likely to be of advantage. The stramonium, especially, possesses very

considerable power in removing such pains. One-fourth of a grain may be given every four hours, until vertigo is produced, when its use must be omitted, and resumed as soon as the vertigo subsides. The *belladonna*, too, has a considerable influence as a remedy in this affection. Mr. Rodo states, that he has cured several cases of painful affections of the nerves, by the external application of a strong watery solution of the extract of belladonna, to the skin, over the affected part. I have administered it with advantage internally; but its use requires too much caution to be employed by persons not acquainted with its results. *Hyosciamus* is the safest and most effectual remedy that can be employed by persons unacquainted with the action of narcotic medicines; one grain of the extract may be given morning and evening, gradually increasing the dose, until twenty or thirty grains are taken during twenty-four hours. It is a valuable medicine in neuralgic affections.

GOUT.

Gout is a constitutional affection, depending on a peculiar condition of the system, and manifesting itself in its regular form by external local inflammation of the fibrous structures and fever. In relation to its symptoms and progress, however, it is subject to certain prominent modifications, which have given rise to its division into the three following varieties, *acute*, *chronic*, and *retrocedent*.

Symptoms.—The gout often comes on very suddenly, particularly in its first attacks. In general, however, the inflammation of the joints is preceded by various symptoms, indicating a want of vigor in different parts of the body. The patient is incapable of his usual exertion, either of mind or body; becomes languid, listless, and subject to slight feverish attacks, especially in the

evening; he complains of pains in the head, coldness of the feet and hands, impaired appetite, flatulency, heartburn, spasms of the stomach, and the usual symptoms of indigestion. He is oppressed with heaviness after meals, and a disturbed unrefreshing sleep ensues. The bowels are seldom regular, being either constipated or too much relaxed; the mind at this period being generally irritable, anxious, and alarmed at the least appearance of danger. A deficiency of perspiration in the feet also, with a distended state of their veins, cramps and numbness of the feet and legs, and other strange sensations, often precede the approaching fit. The duration of the symptoms, previous to the attack, is various: sometimes only a day or two, at other times, many weeks.

The fit sometimes makes its attack in the evening, but more commonly about two or three o'clock in the morning. The patient goes to bed free from pain, and is awakened in the night by a very acute pain, generally in the first joint of the great toe; the pain often resembles that of a dislocated bone, with a sensation as if hot water was poured on the part. It sometimes extends itself over all the bones of the toes and fore part of the foot, resembling the pain occasioned by the tension or laceration of a membrane. Cold shivering is felt at the commencement of the pain, which is succeeded by heat and other symptoms of fever. The pain and fever increases, with much restlessness, until about the middle of the succeeding night; after which they gradually abate, and in the most favourable cases there is little either of pain or fever for twenty-four hours after their first appearance. The patient, as soon as he obtains some relief from pain, generally falls asleep; a gentle sweat comes on, and the part which the pain occupied becomes red and swollen. In most cases, however, the fit is not over, for the pain continues for several nights, becoming less severe till they cease.

Such is a simple fit of acute gout. But it often happens, that after the pain has abated in one foot, it attacks the other, where it runs the same course; and in those who have laboured under repeated attacks of the disease, the foot first attacked, is often seized a second time, as the pain in the other subsides, which is again attacked in its turn, and they are thus alternately affected for a considerable length of time. In other cases, it seizes on both

feet at the same time. After frequent returns, it begins to seize upon the joints of the hand, and at length, the large joints. When the gouty tendency is very great, almost every joint of the body suffers; the pain, when it leaves one, immediately fixing in another.

Chronic gout, (which, by some physicians, is called irregular gout,) is the disease of a weak or debilitated constitution. The inflammation and pain in this species of the disease is more slight, irregular, and wandering, than in the acute; there is only faint redness of the affected joints, or no change at all in the natural appearance of the surface; much prominent distension, however, of the parts, or continued swelling, and difficulty of moving exists. The symptoms are always associated with a disordered state of the digestive organs, a languid or oppressed circulation, and much nervous irritation in the system. The patient is distressed with various uneasy sensations in the stomach, as flatulent distention, craving or deficient appetite, flatulency, &c.; the bowels are either costive, or too much relaxed; fluttering sensations are often felt about the heart; the painful sensation felt in the affected parts are rather those of heat and coldness alternately, than of the more continued burning which takes place in the acute form of the disease; the spirits are depressed, and the mind irritable.

Retrocedent gout, is that form of the disease in which the gouty action is suddenly transferred from the joint, or other external part affected, to some internal organ, as the stomach, head, &c.

Cause.—Whatever tends to produce an unhealthy action of the blood, injures the digestive organs, and impairs the vigor of the system, may be ranked among the causes of the-gout. But the most common causes are an indolent and luxurious life, or a sedentary and studious one; hereditary predisposition; anxiety, or vexation of mind; stimulating diet, immoderate indulgence in acid liquors; the suppression of any accustomed discharge; sudden exposure to cold when the body is heated; wet applied to the feet, &c.

A continued imprudence, or excess in diet, disposes the gout to become chronic, and at last retrocedent, and to attack the stomach in the enervated, and the head in the corpulent.

One of the most frequent causes of the chronic gout, is the improper treatment made use of by injudicious doctors such as quack nostrums.

Diagnosis.—This disease is distinguished from rheumatism by the previous symptoms of indigestion above noticed, which do not occur in rheumatism, by the pains attacking particularly the smaller joints, while rheumatism occupies the larger; by the deeper redness and greater swelling of the parts affected in the gout, than in rheumatism; and by the age of the patient, his habit of body, and mode of living.

Treatment.—The treatment of acute gout naturally resolves itself into that which is proper while the fit is on, and that required during the intervals.

I will first notice the treatment proper during a fit of the gout: but before entering upon that subject, I will remark, that when an individual is warned of the probable approach of a paroxysm of the complaint, by the occurrence of drowsiness, heartburn, flatulency, costiveness, pricking and numbness in the lower extremities, coldness of the legs and feet, and other premonitory symptoms, which are well known to accompany the disease, by those who have had several attacks of it, that he should administer suitable medicines without delay, for by proper management the attack may frequently be prevented; and if this object cannot be accomplished, the paroxysm will be thereby rendered milder, and probably shorter. The best medicine for a person thus situated will be, to take a small dose of calomel and tartar-emetic in the evening, one grain of the former and two of the latter, divided into two equal parts, taking one of them on going to bed, and if it does not produce considerable sickness in one hour, take the remaining one, followed next morning with a dose of ten grains of jalap. When the patient is of a full habit, it will in general be necessary for him to observe a rigid course of abstinence for a few days. If the tongue be much furred, and attended with heartburn and nausea, an emetic of fifteen grains of ipecacuanha in powder may be given, and the following draught should be given twice a day, for some time: take of compound infusion of gentian, an ounce; tincture of colombo, a drachm; carbonate of soda, fifteen grains—mix for one dose.

During the fit, the most efficacious treatment is that which has a tendency to restore the healthy action of the digestive organs; and the most effectual way of accomplishing these purposes, is, by the administration of purgatives and diuretics, combined with mild mercurial alteratives, and a spare diluting diet.

Formerly, physicians were fearful of prescribing active medicines during a fit of the gout, and were generally disposed to trust almost entirely to time, soothing applications to the affected part, as warm flannels, poultices, &c., to overcome the tortures of this distressing malady; but now professional men of judgment fully agree as to the propriety and necessity of endeavouring, by an immediate recourse to the foregoing measures, to remove the disorder of the digestive functions, on which gout, in most cases, depends. As soon, therefore, as a patient is attacked with gout, he should take a pill composed of one grain of calomel, one of tartar-emetic, and three grains of compound extract of colocynth. This pill should be taken every night at first, followed by a draught composed of calcined magnesia, fifteen grains, epsom salts, a drachm and a half, vinegar of meadow-saffron, a drachm, spearmint water, an ounce and a half, to be mixed and taken at once, and repeated every four or six hours, according to the urgency of the symptoms, and the extent of its operation on the bowels. After it has operated copiously three or four times, a sufficient action may in general be kept up by administering it once or twice in the twenty-four hours, which repetition will be necessary, until all inflammation is removed, the evacuations acquire a healthy appearance, and the tongue is free from fur. Should it be preferred, this draught may be taken in a state of effervescence; if so, twenty-five grains of carbonate of potash should be added to the draught, together with a tablespoonful of lemon juice. This addition will make it more agreeable to many persons, and when much fever is present, it is to be preferred.

After the above pill and draught have been taken to such an extent as to act freely on the bowels, some preparation of opium will in general be required, especially if the pain continues severe. If solid opium is used, it should be given in combination with tartar-emetic, which increases the efficacy of the opiate, while it counteracts its deleterious effects. Five grains of crude

opium and one of tartar-emetic, may be made into five pills, and the patient may take one or two at bed time, and repeat them every two or three hours, until the pain is relieved.

Some physicians are in the habit of bleeding their patients from the arm at the time of an attack of this disease, believing it to be very serviceable in a case attended with acute inflammation occurring in full habits; but the majority of the most successful medical men in this city, disapprove of the practice, and it is, in my opinion, highly improper and injurious under ordinary circumstances. Nor can I recommend any patient to resort to leeching the affected part; their application, I am aware, is very common in this city, but the effects of their employment are seldom satisfactory, and often injurious, having generally a tendency to aggravate the subsequent debility of the parts, particularly when freely applied.

One of the best local means of removing the pain, consists in the use of a warm evaporating lotion, composed of four ounces of spirit of wine, mixed with eight ounces of warm water. A lotion recommended by several eminent surgeons, consists of four ounces of spirit of wine, and eight ounces of camphor mixture. I will remark here, that cold applications are certain to remove pain when applied to the affected part in this disease; but there is nothing more dangerous, as it has a tendency to cause the complaint, when situated in the extremities, to remove to some more vital organ. I have known several valuable lives lost from want of information in this particular.

Poultices to the inflamed part were formerly much resorted to, and are still, I fear, too frequently employed for the benefit of sufferers. They are generally applied either too hot or too cold. When too hot, they stimulate the part too much, and lead to subsequent relaxation and debility; and when applied cold, they suddenly check the local action, and are therefore often followed by the desperate results alluded to above. But a poultice made by wetting a sufficient quantity of wheat bran with one of the above lotions, moderately warm, and applied to the inflamed joint, is often of the greatest utility in relieving the pain and inflammation. It may be renewed twice in the twenty-four hours.

In cases attended with very severe suffering, it may be advise-

able to apply some anodyne directly to the part affected, in addition to the internal use of opium, and the extract of belladonna appears to be a very appropriate and efficacious application for this purpose. A drachm of this extract may be mixed with an ounce of spermaceti ointment, and a sufficient quantity of this mixture to cover the affected part, spread on lint, and applied over the seat of pain. In urgent cases, it may be renewed twice or thrice in twenty-four hours, if necessary, and sometimes its tranquillizing effects will be augmented by covering it with the bran poultice made with the spirit of wine and camphor mixture as above described.

Proper diet and drink is of much importance at the time of an attack of gout. It should be diluting and slightly stimulating. I would call the attention of the reader particularly to this circumstance, on account of there being much injury inflicted by the patient being too much reduced. It is well known that a majority of those afflicted with this disease, have been in the habit of living on the most stimulating articles of food and drink; when this is changed too suddenly to a low cooling diet, it seldom fails to prostrate the nervous system to such a degree as to cause the gout to attack some of the internal and vital parts. Under very acute symptoms, and where the patient has not been debilitated by previous attacks of the malady, the nourishment must be wholly fluid unstimulating, and rather small in quantity, until the severity of the inflammation has been subdued, and the patient is beginning to recover. The best food for the patient in this stage, is bread and milk, light bread pudding, mutton or veal broth, gruel, barley-water, &c. Roasted apples, grapes, and oranges, are likewise admissible. The drink should consist of weak tea, barley and toast water. When the patient begins to recover, a soft boiled egg may be added to the above, with half a glass of white wine, diluted with water. But when an individual is attacked, whose constitution is broken by the disease, there ought not to be much change made in his living during a fit of the gout; after he has recovered, however, it will be proper to make an attempt at invigorating his general health, by a proper course of treatment.

The principal indications of treatment in chronic gout, are, to lessen irritation in the stomach and intestines, and restore

therein healthy action, to strengthen the constitution at large, and to apply applications of a soothing nature to the affected joints.

It is certain that the best way of abating irritation in the digestive organs, and of imparting increased strength to them, and the system generally, is, by perseverance in the proper use of aperient, alterative, and strengthening medicines, combined with a mild, moderate, and nutritious diet, a correct regimen, and daily exercise in an open salubrious air ; with the occasional use of anodyne medicines. The due regulation of the bowels is of the greatest consequence ; but from the local as well as general debility present, purgatives must be avoided. If the bowels can be regulated by diet and exercise, so much the better ; but if not, mild aperients, chiefly of a warm aromatic quality should be resorted to, as often as occasion may require. For ordinary use, a warm laxative pill may be made by mixing half a drachm of compound extract of colocynth, half a drachm of compound rhubarb pill, a scruple of castile soap, of the oil of juniper five drops ; beat them into a mass, and divide into twelve pills, one or two of which may be taken at bed time, as occasion may require. One grain of calomel may be given once or twice a week, especially if the patient complains of a bad appetite, and his tongue is foul.

The tonics most proper in this complaint, are gentian, colombo, quinine, and preparations of steel. Those which I have used with most success, have been the extract of gentian, and sulphate of quinine, ten grains of the former, and five of the latter, to which may be added two grains of calomel, and divided into six pills, one of which may be taken every night, at the same time the above is being used.

An eminent European surgeon very properly remarks, when speaking of the morbid influence of the spinal nerves, “ by the employment of remedies at those parts, some of our most obstinate diseases may be rendered comparatively tractable. For instance, *pain*, in general, may almost immediately be relieved ; and the symptoms of gout, rheumatism, &c. more effectually counteracted than by any other means I am acquainted with.” I have found attention to the roots of the spinal nerves of the greatest importance in a very large number of cases which have come under my care, and they have yielded to treatment when applied

to that part after having resisted all other. I would advise every person who is afflicted with gout, and has used the above treatment without effect, to apply that recommended for disease of the spinal marrow, on page 134.

I have already stated, that when the gout suddenly leaves the extremities, and fixes on some internal organ, as the stomach, bowels, lungs, or heart, it is called *retrocedent* gout. The general idea of the nature of this affection, is, that it is spasmodic; but it may be either spasmodic or inflammatory. If the attack be purely spasmodic, the muscles of the abdomen are rigidly contracted, pressure affords relief, and the pulse is not much affected; when, on the other hand, if it is inflammatory, the parts are tender and the pain will be much increased by the slightest weight or pressure, and the pulse will either be small and distinct, or full, hard, and oppressed. In very delicate nervous subjects, the attack is often spasmodic; in the corpulent or vigorous, it is generally inflammatory, especially when it has followed imprudent exposure to cold.

The treatment of retrocedent gout will, therefore, differ, according to the symptoms. If we have reason, from the above considerations, to believe it spasmodic, three or four grains of calomel in combination with one grain of opium, should be given at once; and if the bowels are constipated, an injection of cold water with a sufficient quantity of starch to give it some consistence, should be thrown into the bowels, and at the same time, fomentation of the abdomen, by means of flannels wrung out of hot water, should be employed. If relief is not obtained in three or four hours by the above means, fifty or sixty drops of laudanum, or the fourth of a grain of morphia, must be given, dissolved in a wineglass full of water, to which a small quantity of brandy may be added, if the patient is very much exhausted.

If the attack occurs in a person of full vigorous habits, and there is reason to regard it as inflammatory, the usual means for checking inflammation, must be resorted to with promptness and decision. Sixteen ounces of blood must be taken from the arm, and the operation repeated in a short time, if the pain continues. Leeches may also be applied over the bowels, warm fomentations to the abdomen, and mustard plasters to the feet, in order to

solicit back the disease to the extremities. After bleeding has been resorted to, a large blister should be immediately applied near the part affected.

When the gout attacks the head, it is generally of an inflammatory nature, and will require cupping and blisters about the head, mustard plasters to the feet, &c.

ACUTE RHEUMATISM.

Symptoms.—The acute rheumatism usually commences with lassitude, chilliness succeeded by thirst, restlessness, and a quick pulse; there is also a sense of weight, coldness of the limbs, and constipation of the bowels. In the course of a day or two, inflammation, with acute pain and swelling makes its appearance in one or more of the large joints of the body. The pain is frequently transitory, and apt to shift from joint to joint, leaving the part previously occupied, swollen, red, and extremely tender to the touch. The pulse now becomes full and hard, the blood, when drawn from a vein, exhibits the signs of inflammation; the tongue preserves a steady whiteness; the bowels are costive and there is profuse sweating, unattended by relief. Sometimes, however, the pain is the first symptom, and the fever follows. When the pain is not very severe, and confined to a few parts, the fever is slight; when it is severe and felt in many parts, the fever is more considerable, and it is most so when the pains extend over the whole body. Both the pain and fever generally increases in the evening, and a remission towards morning. The pains are much increased on the slightest motion requiring the action of the muscles affected, and are most severe, as well as most apt to shift their place, in the night-time. The fever abates sooner than the local symptoms, and is rarely protracted beyond a fortnight or

three weeks. The pain is generally the last symptom that leaves the patient. They often begin to abate about the eighth or tenth day, but more frequently continues, with more or less severity, to the thirteenth or fourteenth, and sometimes much longer.

Cause.—Cold or damp applied when the body is heated, is the most usual cause, and the young and vigorous, and those between the age of thirteen and thirty-five, are most subject to it. It is more frequent in the beginning and towards the end of winter, than at any other season.

Persons of a bilious habit are most subject to it; and a disordered condition of the system, produced by bile, may be considered its principal exciting cause.

Diagnosis.—The only disease with which it is liable to be confounded is gout; but the last mentioned disease is preceded by more evident symptoms of indigestion; comes on more suddenly; attacks the smaller joints; and has not so strongly marked an increase of fever; nor is it attended with that profuse sweating which accompanies rheumatism.

Treatment.—The most efficacious remedies in acute or inflammatory rheumatism, are blood-letting, mild purgatives, diaphoretic and mild strengthening remedies, such, for instance, as calomel, opium, tartar-emetic, combined with ipecacuanha, the wine of meadow-saffron, &c. If these are skilfully employed, they are very generally equal to insuring a satisfactory termination of the disease. At the commencement of an attack, especially if the fever and pain is violent, the patient should be bled from the arm, to the extent of from ten to sixteen ounces. After this, small quantities of tartar-emetic should be given in order to insure a slight degree of nausea, the fourth of a grain in powder or dissolved in a tablespoonful of water, every hour, will be likely, not only to check the fever, but will act gently on the bowels. In the night, if the pain is so severe as to prevent the patient from sleeping, a pill, composed of one grain and a half of calomel, one grain of opium, and the fourth of a grain of tartar-emetic, may be given once or twice during the night. This relieves pain and inflammation, and has sometimes much influence in shortening the term of the disease. If the patient should be peculiarly susceptible to the action of opium, it will often be better to give only a half a

grain at a time, particularly in the commencement of a very acute attack.

In respect to blood-letting, it ought to be observed, that it should not be employed for the purpose of relieving pain, when the general excitement does not warrant it; in other words, it is the fever alone which is to direct us in the use of the lancet, the abstraction of blood, in acute rheumatism, being always attended with unpleasant results, when employed in the absence of fever. It is, in fact, one of the principal causes of the chronic form of the complaint: and it is seldom proper to bleed a patient after the fourteenth or sixteenth day from the commencement of the attack, and at no time when the fever is abating, although the pain should become worse.

After the disease has been treated in this way for a week or two, the wine of meadow-saffron may be administered, especially if the pains continue severe. This medicine is not applicable to the beginning of the complaint, but towards the decline, it is frequently of much service in allaying pain and inflammation in the joints, but it must not be used very freely. Forty or fifty drops of it may be taken in any agreeable article, twice a day, when the distress is severe.

After the disease has been removed, the patient should guard against exposure to a damp atmosphere, and a bilious or disordered condition of the body; by so doing, he will be likely to prevent much distress.

CHRONIC RHEUMATISM.

The chronic rheumatism differs from the acute in being attended with little or no fever or inflammation, the chief symptoms being pain and swelling in the large joints, and in the course of certain muscles. The former is a disease of debility, and the latter is an inflammatory complaint.

The chronic species becomes fixed most frequently in the loins, hips, knee, and ancles, but every large joint is liable to its attacks. The general heat of the body seldom exceeds its natural temperature; and the pulse is rarely quicker than eighty strokes in a minute; the joints are swollen, but not to so great a degree as in the acute species, cold and stiff, roused with difficulty to perspiration, and always relieved, in some degree, by the application of warmth.

The same causes may give rise to this as to the acute species, but it is most generally the latter disease which first excites it into action.

Treatment.—I have just remarked that it is a disease of debility, and the mode of treatment must be founded on this idea. Bleeding and purging, therefore, ought not to be employed under any circumstances; the most efficacious remedies being those which are of a warming nature, and which promote the insensible perspirations, such as guaiacum, turpentine, camphor, cajupute oil, mustard, and sulphur.

Stimulating applications are likewise often of great service, more especially the stimulus of galvanism, or electricity.

In the whole catalogue of medicines recommended for the cure of chronic rheumatism, there is none more efficacious than sulphur. If the pain is severe, however, it will be proper to combine it with something to palliate and enable the patient to sleep. For this purpose I believe there is nothing more proper than the compound ipecacuanha powder. One teaspoonful of the flowers of sulphur, and six grains of the compound ipecacuanha, taken at bed time, is eminently serviceable in relieving the pains, disposing to sleep, and keeping up a gentle and salutary discharge of perspiration, which, of all others, is the evacuation affording most benefit in cases of this description. If the pains are very distressing during the day, three grains of the compound ipecacuanha powder may be made into a pill, or taken in the form of powder, three times during the course of the day. At the same time, the affected part may be rubbed twice a day with a liniment made by mixing strong liquor of ammonia and oil of turpentine, in the proportion of one ounce and a half of the former to half an ounce of the latter; this should be rubbed on the part for the

space of fifteen minutes at a time. During the intervals of rubbing, the painful parts should be wrapped in flannel. If the patient's strength is much exhausted, a grain or two of the extract of dogwood bark, or two grains of the sulphate of quinine, and the fourth of a grain of calomel, may be made into a pill, and taken every day at ten o'clock in the morning.

In addition to the above means, a warm salt water bath, or the vapor bath made by placing a basin of hot water under the bed clothes where the patient is laying, and dropping into it occasionally a piece of red hot iron, or some such substance, for the purpose of causing the vapor to rise and spread about the patient, is frequently attended with the most happy results; it having the tendency of producing a profuse perspiration in a few moments, neglect of this simple process in the treatment of this species of rheumatism, has been the cause of the want of success which has attended the practice of many respectable physicians, and has been the cause of the little reputation of that unfortunate class of men who apply steam for all diseases. They, however, generally do as much harm as good in the treatment of rheumatism alone, on account of their applying the steam in both species; the acute form of the disease being injuriously affected by steaming, and even debilitated patients, labouring under the chronic form, are frequently destroyed by them, in consequence of their having no knowledge of what they can bear. Steam, it ought to be recollected, is a powerful substance, and ought not to be trusted in the hands of ignorant persons when applied to the human body, any more than when applied for the purpose of propelling a steamboat. If these fail, the oil of turpentine may be taken internally; half an ounce of it may be mixed with an equal quantity of sweet spirit of nitre, of which mixture a teaspoonful, three times a day, in any agreeable article, is the proper dose.

Should the complaint prove particularly obstinate, which is not uncommon, I would recommend a trial of the following pills, instead of those made with the compound ipecacuanha powder alone: take of the best compound ipecacuanha powder, forty grains; extract of hemlock, prepared in vacuo, one drachm; socotorine aloes, in powder, four grains; mix and divide into thirty pills, two of which are to be taken three times a day.

(The former treatment is not to be neglected while taking these pills.)

The arsenial solution is highly praised by several eminent physicians, in the cure of this species of the disease. It ought not to be used by persons who are not acquainted with its poisonous qualities, on account of it being extremely dangerous, and its administration ought to be confined to cases of several years standing. It is this drug which is employed by a certain class of impostors in the form of little powders. Electricity in the form of aura or sparks, is worthy of much confidence; and the same may be said of galvanism.

The operation of galvanism is more soothing and agreeable to most patients than that of electricity, and perhaps is commonly more efficacious in this complaint. It has undoubtedly performed some astonishing cures. The most effectual method of applying it, is for the patient to sit on an insulated stool, and hold his hand on the leadened jar until his body becomes so completely charged, as to cause a person who should touch him to receive a severe shock. It ought to be repeated every twelve hours.

FEVER.

Physicians have divided fevers according to the mode of their development, in what they have termed *idiopathic* and *symptomatic*. By the former class are understood those fevers which are developed and sustained by causes, which produce a general morbid state of the system, independent of a local inflammation or fixed irritation in some part of the body; such for instance as *intermitting* fever, or fever and ague, *nervous* fever, or what is erroneously termed brain fever. The latter class are those known by the terms scarlet fever, catarrhal, and all fevers accompany-

ing ulceration of any part of the body, such as the fever accompanying measles, small-pox, disease of the lungs, &c.

It will be recollected that the last mentioned class of fevers is fully treated of under the heads of inflammation of the different organs of the body, and those which I now intend speaking of are the first species of fevers mentioned above, or that class of fevers which are supposed to be unaccompanied with inflammation of any particular organ.

INTERMITTING FEVER OR AGUE.

Ague is a fever constituted of paroxysms or periods of fever, between each of which there is a distinct and perfect intermission from febrile symptoms. There are several species of this disease, but the *quotidian*, which returns every day; the *tertian*, recurring every other day; and the *quartan*, occurring on the first and fourth day, are the most common varieties. It is likewise termed *autumnal* fever, when it takes place in autumn, and *vernal*, when in spring.

Symptoms.—Every fit of this complaint consists of three stages: a cold, a hot, and a sweating stage. In the cold stage, the skin of the face and hands becomes purple; the features shrunk; the sensibilities are greatly impaired; the breathing short and anxious, and a sensation of distressing cold is felt over the whole body, succeeded by shivering and violent shaking. Shortly after the termination of the cold, the hot stage commences, and the body soon becomes heated to a degree much above its natural standard; the countenance is now flushed and tumid; there is generally acute throbbing pain in the head, sometimes in severe cases slight delirium; the pulse is strong, full, and frequent, and the thirst urgent. These symptoms are, after a shorter or longer period, followed by moisture of the skin, which soon breaks out into a profuse perspiration, terminating the fit. The whole parox-

ysm generally occupies about eight hours. During the intermissions which take place between the attacks, the countenance is pale and shrunk, and the constitution in general appears to be affected. In the commencement of intermitting fever, however, the patient is sometimes free from indisposition.

Cause.—Any thing which has a debilitating tendency may be considered a predisposing cause; but the great exciting cause is *marsh miasma*, or the effluvia arising from stagnant water, or marshy ground, impregnated with vegetable matter in a state of putrefaction, are particularly favourable to the production of *marsh miasma*. Intermitting fever is, however, frequently produced by other causes, such for instance as irritation in the stomach and bowels.

Treatment.—There are few diseases more completely under the control of remedies than ague, and there is perhaps, no one more frequently mismanaged, especially in parts of the country where it occurs frequently. On account of it not often proving fatal in its regular form, it is frequently neglected, or treated with remedies prepared by quacks and injudicious practitioners, until it has produced derangement of some of the vital organs, causing the unfortunate individual to suffer ever after. In short, I am not acquainted with any complaint more likely to destroy life, or render an individual miserable than ague, when neglected or improperly managed.

At the commencement of an attack, the patient should be placed in bed between blankets, and allowed to partake freely of warm diluting, but not stimulating drinks; the most proper are water-gruel, barley-water, sage tea, &c. If the patient should be a very delicate or aged person, thirty or forty drops of laudanum may be given in a small quantity of cinnamon water. In cases where laudanum is thought proper, it ought to be given at the time when the cold fit of the disease is first felt, or suspected to be approaching. In cases where laudanum is known to disagree, the following mixture will be found to be of much service in moderating the cold fit, and also the subsequent stages: Take one scruple of the sub-carbonate of ammonia; eight grains of the compound powder of ipecacuanha; and one ounce and a half of mint water; mix for a draught.

After the cold stage has subsided, and the fever has commenced, the patient should be permitted to allay the distressing thirst which accompanies it, by the use of cold water. There is nothing more agreeable or beneficial to a patient labouring under this species of fever, than this beverage; it has a tendency to shorten the hot stage of the disease, and cause the perspiration to take place much sooner than any other article that can be taken.

In the intermissions, the proper treatment is to cleanse and strengthen the stomach and bowels, and to invigorate the general habit. The Peruvian bark and the preparations made from it, is well known to be, in general, the most valuable medicine in the cure of ague; but previous to its exhibition, the stomach must be cleansed by the use of alterative medicines; in the first place, three grains of calomel should be administered, and followed in four or five hours with fifteen grains of ipecacuanha in powder, or ten grains of jalap. If the patient prefers it, he may take in place of the last mentioned, a dose of senna and manna. As soon as this medicine has exerted its influence on the stomach and bowels, the bark, or if preferred, the quinine should be commenced. The bark is most efficacious in the form of powder, and in large doses, administered at short intervals. An ounce of it may be divided into eight doses, and a dose taken every hour, or every second hour. If the patient is much debilitated, or his stomach very irritable, the bark must be given in combination with wine and aromatics: each dose may be taken in a large wine-glass of Port, to which may be added four or five grains of cinnamon bark in powder, or eight or ten grains of fennel seed in powder. If it should cause purging, add three or four drops of laudanum to each dose; if constipation, mix the dose with a scruple of rhubarb, as occasion may require. When nausea and oppression attend its use, twenty or thirty drops of the elixir of vitriol is an excellent preventative, and assists very much in facilitating the action of the bark. In place of the Peruvian bark in substance, however, the preparation of it called the sulphate of quinine, is now most generally employed in the cure of ague; and when it can be obtained pure, it is still more efficacious than the bark, on account of it producing the desired effect on the nerves in a much shorter time than the bark; it also acts with

greater certainty, and can be given in a small compass, which is a matter of great moment in the administration of disagreeable medicines. Two, three, or four grains of the sulphate of quinine in solution, rubbed up with a small quantity of sugar, or made into a pill with a small quantity of extract of gentian, may be given twice a day after the preparatory measures mentioned above have been used, with a certainty of success, provided the patient's constitution has not previously been injured by the improper use of the quinine, administered as it is by injudicious hands. After the disease is checked, one of the pills should be given once a day, for two or three weeks, with the view of fortifying the system against a relapse of the complaint.

In cases where the above remedies fail of success in two or three weeks, the disease may be expected to have produced some disorder of the internal organs, such as enlargement of the liver, or congestion of the spinal marrow, requiring a mode of treatment altogether different from the above.

For the plan of procedure in instances of this kind, see *Acute Inflammation of the Liver*, (page 248) or *disease of the Spinal Marrow*, (page 101.)

BILIOUS, OR INFLAMMATORY FEVER.

This fever has derived its name from the circumstance of it being accompanied with symptoms denoting intense heat, and general inflammation in the system, and at the same time a bilious condition of the body, accompanied with bilious vomiting, a yellow appearance of the skin, &c.

Symptoms.—It comes on with a sense of lassitude; pains over the whole body, but more particularly in the head and back; chilliness, succeeded by transient hot flushes, and terminating in violent and continued heat: to these succeed redness of the face

and eyes; throbbing of the temples; great restlessness; unquenchable thirst; oppression of breathing, and nausea. The tongue is covered with a thick white fur; the urine is red and scanty; the body costive; and the pulse quick, full, and hard.

At the commencement, and often for several days after, there is little or no disorder of the mind; but if the fever becomes very great, and proper remedies are not employed to arrest it at an early period, stupor and delirium takes place, and sometimes the imagination becomes much disturbed, and the patient raves violently.

When it continues long, the symptoms of excitement are frequently changed to those of debility, and the fever by degrees assumes a low nervous character.

Prognosis.—A moisture appearing on the skin about the seventh day, succeeded by a copious and natural perspiration; bleeding from the nose; the appearance of eruption about the mouth and nose; the formation of abscesses; looseness; the deposit of a copious red sediment in the urine; and the pulse becoming slower and softer, are favourable signs: but intense and continued pain in the head, with high delirium; extremely laborious respiration; the pulse continuing strong and hard; picking at the bed-cloths; hiccup; and involuntary evacuations, are unfavourable symptoms.

Cause.—Sudden transition from heat to cold: swallowing cold liquors when the body is much heated by exercise; excessive use of spirituous liquors; violent passions of the mind; long exposure to the intense rays of the sun; and the sudden repulsion of eruptions, are the most common causes of this fever. It attacks persons of all ages and habits, but more particularly those in the vigour of life, and of a plethoric habit. It may occur at any season of the year, but most frequently takes place in the spring or autumn.

Treatment.—As the symptoms of inflammation and high excitement are the prominent features of this complaint, the principal indications are, to reduce the violent action of the circulation, and to bring it into a state as nearly natural as possible; this is most effectually done by the employment of blood-letting, cooling purgatives, and relaxations, or medicines which have the power

of relaxing the skin, and promoting a gentle perspiration. From twelve to fifteen ounces of blood ought to be taken from the arm as soon as there is sufficient reason to believe, judging from the symptoms, that bilious fever is commencing; and should the patient be young, or of a vigorous habit, and the violence of the symptoms continue unsubdued by the first bleeding, it should be repeated to the same extent after the lapse of two or three hours. In cases of persons enjoying robust health, it will sometimes be necessary to bleed even to the third or fourth time; but in delicate subjects this is never necessary, and it is, indeed, in many cases, improper to bleed to any extent from the arm. An ounce or two of blood taken from the temples, or back of the neck with leeches, being all that can be of service to the patient, in the way of depletion by blood-letting. There is a variety of ways, however, in which the fever can be moderated in delicate subjects, with as much certainty as by bleeding, the most efficacious of which I shall presently mention. Half an ounce of epsom salts dissolved in a small quantity of water, and mixed with a glassful of soda water, may be taken in the state of effervescence, and repeated as often as is necessary to prevent or remove constipation of the bowels.

Immediately after the first bleeding, ten or fifteen grains of calomel should be given, followed in three or four hours with a dose of senna tea, or twenty or thirty grains of jalap. This seldom fails to check the disease, and not unfrequently, if given at an early period, to put a stop to it. If it should not, however, and the pain in the head or back returns, blood may be again drawn from the arm, or cups and leeches applied to the painful part, and small quantities of calomel must be given frequently, with the view of getting the system as speedily as possible under its influence, which will be certain to relieve the patient in some degree; but when the mouth becomes slightly sore, and the gums red and spongy, its use must be discontinued. A grain every two or three hours for two days, will be sufficient. If the patient's stomach is not irritable, he may take half a grain of ipecacuanha, or the sixth of a grain of the tartar emetic, with each dose of the calomel. But if there is much sickness and irritation of the stomach, which is most generally the case, in

place of the ipecacuanha or tartar emetic, give a table-spoonful of the following mixture every three hours: Take of solution of ascetate of ammonia, (*spirit of mindererus*,) eight ounces; nitre, one ounce; ascetate of morphia, one grain dissolved in a small quantity of water, a table-spoonful will be sufficient; mix, and shake the ingredients well together in a bottle.

Before the patient's system has been brought under the influence of the calomel, and when his skin is very hot and dry during the stage of fever, his sufferings may be much alleviated by sponging his body with cold water,* and suffering it to evaporate by the heat of the body. He may also be allowed to drink cold water freely, but after the calomel has began to take effect, it will be improper either to apply cold water to the skin, or allow the patient to drink it.

The bowels are to be kept moderately open through the whole course of the disease; and for this purpose the epsom salts may be given as often as appears to be necessary. A very agreeable method of administering it, especially when the stomach is irritable, is by dissolving half an ounce of salts in a wine-glassful of mint water, mixed with a glassful of soda water, and drank in the act of effervescence.

When, either from the imprudent employment of irritating purges, or from other causes, the mucus membranes of the bowels are brought into a state of high irritation, or sub-acute inflammation, the disease generally loses its inflammatory symptoms, and assumes a low typhoid character, attended with almost constant delirium, and tenderness of the bowels when pressed upon; circumstances requiring the most cautious management. (See Typhus Fever.)

In cases of this disease occurring in delicate, or persons of weak constitutions, as I have before stated, bleeding is seldom advantageous, and often altogether improper. In instances of this kind, the proper plan at the commencement will be to ad-

* "The late Dr. Currie of Liverpool" says a successful practitioner, "was in the habit of dashing cold water over his patients with high fever, which, in the commencement of the disease, is a practice much to be recommended, and enjoying the countenance of the profession."

minister an active dose of purgative medicine. A combination of calomel and jalap in the proportion of ten grains of each, will, in general, suffice to procure adequate evacuations. Having accomplished that object, recourse must next be had to such remedies as have the tendency to restore a healthy action of the liver and skin, and to moderate the general febrile excitement, and also to remove the local congestion or inflammation that may supervene.

To correct the morbid condition of the liver, and allay the feverishness of the body generally, I would recommend the following mixture. Take of powdered nitrate of potash, one drachm; powdered ipecacuanha, twelve grains; calomel, ten grains; mix, and divide into six equal parts. One of which is to be taken every three or four hours. Calomel is a most important remedy in this form of fever, as it has the power of altering the morbid condition of the liver, and of the whole system, together with its gentle aperient effects on the bowels, render it peculiarly beneficial in cases of delicate persons.

While the calomel and ipecacuanha are being administered, the bowels should be kept freely moved by additional aperients, if the calomel and ipecacuanha do not produce the effect sufficiently in six or eight hours after the second dose is taken. For this purpose, an ounce of the epsom salts or magnesia, or fifteen grains of the compound extract of colocynth, may be given once a day, or as often as required. It is generally, however, most proper, especially in cases of delicate persons, after the first mild purgative has taken effect, that the bowels should be kept open by the use of tamarind water, or the seidlitz powders. In cases attended with a distressing sense of sickness, accompanied with soreness in the region of the stomach or bowels, leeching, succeeded by warm applications over the part, will in general give relief. Applying blisters over the stomach in cases of this kind, has been recommended by some; but experience does not offer much in favour of their employment in cases of this species of fever.

The diet through the whole course of this disease must be very simple, and small in quantity. All solid food must be abstained from; even animal broths will be found injurious, and the patient

must take only thin gruel, preparations of barley, toast, tea, &c. Fresh acidulous fruits may be taken. After the disease has abated, the patient must return to his ordinary diet by very slow degrees, and with great attention to the quality and quantity of his food.

YELLOW FEVER.

It has been the general opinion of almost all the physicians who have had much to do with this disease, that it is a fever of the bilious character, of more or less intensity and acuteness, in proportion to its exciting cause. The variety of the forms and aspects under which it presents itself has, however, in some measure, discounted and altered the idea which medical men had entertained of it, but this particular difference has not been able to change its character; and thus it has continued to be classed as a malignant typhus, or malignant synochus, compound of synochial and typhus fever.

The symptoms of inflammation, relaxation, and debility, which are peculiar to it, have induced some of those who have written on the subject, to admit three species, different from each other, and to employ different plans of cure; but I will not enumerate them in this work, as they would only serve to perplex the general reader. It is my principal intention to describe the first symptoms of the complaint, and point out the remedies which may, if taken in time, check the disease, or at least render its course more mild and less fatal.

Symptoms.—In taking a brief view of the symptoms, we may state them to be nearly as follows, viz. weariness and languor; faintness, giddiness, and pain in the head; chilliness, succeeded by general heat, flushing of the face, and strong beating of the arteries of the neck and temples, excessive thirst; redness, heavi-

ness, and burning of the eyes; frequent, small, oppressed pulse; distressing nausea; the skin dry, or covered with a clammy moisture; great restlessness and anxiety, accompanied with a peculiar expression of the countenance, indicative of inward suffering. To these symptoms succeed a quick, hard, tense pulse, burning fever, heat of the general surface; the countenance is highly flushed, the eye muddy and inflamed; the urine scanty; frequent sighing, and indescribable fidgetting; distressing sensation of heat in the stomach, and violent retching; a yellowish tinge appears about the neck and angles of the mouth, and by degrees spreads itself over the whole surface of the body; the tongue is clean and red on the edges, but furred in the middle; the mind is confused, and sometimes delirium occurs. After this, the animal heat falls below the natural standard; the pulse abates in frequency and strength, and a general torpor of the mind and body becomes conspicuous. The vomiting is copious, and cannot be restrained. The fluid thrown off the stomach is either like muddy coffee, of a faint brown with a tinge of green, or quite black. The delirium often becomes very great at this period, and the patient is frequently quite frantic; bleeding from the nose, ears, and gums also occurs about this time, and is followed by loss of speech and fatal stupor.

Cause.—The principal cause of this fever, in whatever part of the world it appears, is *marsh effluvia*, or the noxious exhalations arising from marshes and swamps. It may also be excited by the exhalations from masses of any vegetable matter in a state of putrefactive decomposition, although there are no swamps near.

It is equally certain, that the origin of the malignant miasma which produces it, depends on the concurrence or union of the atmosphere, the temperature of which excites them, particularly in warm countries or warm situations, such as low, moist, and marshy places, especially where there is any assemblage of animal or vegetable putrid matter.

It is a disputed point whether yellow fever be or be not contagious; but it is worthy of remark, that the majority of those physicians who have frequently witnessed and treated it in all its forms, and in different sultry regions, and who enjoy the greatest reputation for accuracy and skill, do not believe it to be con-

tagious. In my opinion it is not contagious under ordinary circumstances, but may become so if a number of the sick be crowded together, and especially if free ventilation be not resorted to, and the accumulation of filth be permitted. We had satisfactory evidence of this fact at the time the disease was prevailing at Baltimore in the year 1819, where it was found that those persons employed to attend the sick in the city hospitals established in the neighbourhood of the city, were in no instance attacked by the disease. But although yellow fever be not contagious, it may no doubt be introduced into seaports in ships—unquestionably, a pestiferous miasma may, under favourable circumstances, be generated in the holds of ships while navigating in hot climates; which, when suffered to escape at the wharves, may give rise to the disease in question.

Treatment.—Generally speaking, yellow fever commences with symptoms of high excitement in the system. The black matter thrown from the stomach in the latter period of the disease, being composed of flakes of congealed blood, (and not bile as formerly supposed,) indicating a determination of the circulation to the mucus membranes covering the internal parts, does, I think, call for prompt and copious depletion, especially by blood-letting, as has been the practice of all intelligent physicians.

When, therefore, a patient is attacked with headache, giddiness, flushing of the face, full strong pulse, and other symptoms denoting an invasion of yellow fever, sixteen or twenty ounces of blood should be immediately drawn from the arm; he should take a dose of purgative medicine, composed of ten or fifteen grains of calomel, and twenty grains of rhubarb. A large blistering plaster should be applied over the region of the stomach, and he should drink freely of cold diluting drinks, as tea, barley water, toast water, &c. If, by the use of these means, the symptoms are greatly relieved, and the attack appears likely to be overcome, all that is generally necessary will be to keep the bowels gently open with some cooling laxative, such as the seidlitz powders; three or four may be taken during the day, and the same plan of taking diluting drinks, as barley or toast water, may be taken freely, until all danger appears to be removed. But if symptoms of the fever continue unabated or increase in se-

verity, the blood-letting must be repeated to the same extent within a few hours, even to the third or fourth time, especially if the patient is young, and has enjoyed previous good health; and the purgative dose of calomel and rhubarb should be repeated every twelve or fourteen hours, with the view of getting the patient as speedily as possible under the influence of the mercury.

It ought never to be forgotten, that in very acute attacks of yellow fever, we have but a short space of time to use remedies in, and therefore in the freedom in which we resort to the use of the lancet, purgatives, especially calomel and cooling dilutive drinks, our success will depend; but we must ever be guided by the severity of the symptoms, the suddenness of the attack, and the importance of the organs whose destruction is threatened by its violence; and this is more especially to be borne in mind, when the subject of the fever is young, vigorous, and lately arrived from a temperate climate. Bleeding the patient is seldom proper after the first forty-eight hours of the disease. If by the use of the above remedies, we are so fortunate as to have subdued the fever, great care will still be required to restore the patient from that state of extreme debility to which he will be reduced, and at this period recourse must be had to the active tonics, and of these the *cinchona* and quinine is the most efficient. The latter, especially, seems to have been of great use in this disease.

The *cinchona* has been resorted to by some eminent physicians in the less vehement cases with much good effect, as early as the first remission of the fever, having previously evacuated the bowels thoroughly; and some physicians have even recommended tonics to be given in conjunction with calomel, during the first periods of the complaint; but I believe the practice to be extremely dangerous. After the fever has been subdued, however, and the stage of debility is beginning to approach, the bark, quinine, wine, and ammonia, constitute almost the only remedies that can be employed with any prospect of advantage. A pill composed of two grains of quinine may be given three times during the day, and if the debility is very great, ten drops of the spirit of ammonia may be given in a wine-glassful of water every

three or four hours, and at the same time small quantities of wine may be administered every hour or two.

The patient's food should be very light and sparing; at first, a small quantity of beef or chicken tea may be allowed, gradually increasing it in quantity and strength. His drink may consist of tamarind water, or water rendered pleasantly sour by adding a few drops of the nitric acid.

NERVOUS, OR TYPHUS FEVER.

Without entering into a detail of the vague and arbitrary names by which authors have designated this disease, such as putrid, brain, jail, and hospital fevers, I will proceed to describe it by the name of nervous fever, which conveys a more correct idea of its nature than any other, it being caused by a depressed and debilitated condition of the nervous system, whether produced by the impure atmosphere of a jail, hospital, or theatre, and requires the same treatment.

Nervous fever is a continued fever, which is characterized by being a contagious disease, by the temperature of the body being, for the most part, little raised; the pulse small, weak, and frequent; the mind much disturbed;* and the strength greatly diminished. It is a fever which usually runs a lengthened course, generally not less than twenty days, and is attended through its whole course with evident symptoms of depressed nervous power, and great deprivation as well as diminution of the secretions.

* A circumstance which has unfortunately caused some of our doctors to suppose that the disease originates in the brain, and they have called it brain fever. There is no such fever; and I would advise my readers who may be so unfortunate as to be attacked with nervous fever, and have a physician who would apply treatment such as cups and blisters to the head, to get rid of him as soon as possible.

Symptoms.—(*Premonitory stage.*) A peculiar uneasy sensation in the pit of the stomach, want of appetite, slight giddiness and nausea; pale, shrunk, and dejected countenance, dull and heavy eyes, often tremor of the hands, and a general feeling of weariness, debility, and disinclination to exercise either body or mind. These forming symptoms usually continue from three to six days, terminating in those which mark the stage of *invasion*, namely, slight chills, alternating with flushes of heat; an entire disgust for every kind of food; tongue covered with a thin white fur; considerable nausea, and sometimes vomiting; a quick, small, and irregular pulse; a confused and heavy sensation in the head, and increased mental and physical depression. This stage generally occupies from six to twelve hours, and terminates in the stage of excitement. The febrile heat now increases considerably; the face is slightly flushed; the pulse raises in strength and fulness; the skin becomes dry, and the lips parched; there is considerable thirst for cold drink; the tongue becomes more furred and slimy; the bowels are usually torpid; the mind is more confused; the patient fretful, restless, and watchful, with an anxious expression of the countenance; the urine is small in quantity, and reddish; the head feels heavy, much confused; and during the first two days of this stage, occasional manifestations of delirium occurs during the night. About the end of the second or third day of this stage, slight catarrhal symptoms usually take place, such as suffused and injected eyes, slight inflammation of the throat, causing some pain in swallowing; more or less oppression in the chest, attended generally with a short dry cough. There is often some tension and tenderness in the region of the liver and stomach. Pains in the back, loins, and extremities, are seldom absent at this time, and in many cases a general soreness is experienced throughout the whole body. Towards the close of this stage, or the third day of the stage of excitement, the mind becomes much disturbed, slight deafness, delirium more frequent, and the general torpor of the body gradually increases. One of the most striking characteristic phenomena of nervous fevers, is the almost insurmountable aversion to corporeal and intellectual exertion manifested through nearly the whole course of the disease. The patient moves slowly, and seemingly with great reluctance, and his an-

swers to questions are hesitating, short, and peevish. The stage of excitement generally continues six or seven days before it terminates in the stage of collapse, although this sinking stage sometimes supervenes at a much earlier period, and occasionally comes on a few days later. The occurrence of a collapse is manifested by the subsidence of the previous inflammatory symptoms, and the supervention of great prostration, feebleness, and greater frequency of the pulse; a dry, brown, and eventually black skin; a stunned, confused, and deranged state of the senses, with constant, low, muttering delirium. There is also generally at this time great difficulty of hearing, twitching of the muscles of the face, and difficulty of protruding the tongue. The period of collapse generally continues from seven to nine days, terminating either in slow convalescence, or in death.

Cause.—Whatever has a tendency to debilitate or derange the nervous system, may become a cause of typhus fever, and among the most frequent and influential sources are—unwholesome food, a confined, stagnant atmosphere, grief and other depressing passions of the mind, sedentary habits, intemperance, excessive indulgence in the use of intoxicating liquors, profuse evacuations, and exposure to a cold and moist atmosphere. Any of the ordinary fevers may give rise to typhus, if the season of the year, the state of the atmosphere, or the constitution of the patient dispose to this form of the disease.

It is often, as I have before stated, propagated by contagion, that is by the effluvium arising from a living body labouring under the disease; and when a patient afflicted with typhus is confined in a damp, close, and stagnant atmosphere, deprived of free ventilation, and exposed to the noxious exhalations of accumulated filth, he is in a condition to communicate the disease in its worst form, and it is from this cause that that form of nervous fever commonly called putrid fever arises. Indeed, it is the want of cleanliness and due ventilation which causes it to attack healthy persons when confined in jails, ships, hospitals, and the crowded and filthy habitations of the poor.

Diagnosis.—Nervous fever may be distinguished from bilious or any other species of fever, by the numerous and well marked symptoms of debility present in the former; by the brown ap-

pearance of the skin; the smallness of the pulse; the brown fur on the tongue, and the early and great disturbance of the mind.

When it occurs as a termination of inflammatory fever, it is known by the symptoms of debility and prostration above described, supervening those of high inflammatory action.

Treatment.—In the treatment of this fever, we must ever be guided, in some measure, by the nature of the symptoms, the age of the patient, his habits and constitution; but as it is in general a disease of debility, a mild tonic plan of treatment is the most proper and successful, and the means that have been found to be of the greatest service, are free ventilation, and the exhibition of mineral acids, bark, wine, &c.

The first point to be attended to at the commencement of the disease, is to admit a free circulation of air into the patient's apartment. This is very generally neglected in the treatment of nervous fever, but it is universally called for, and will frequently prove of more value than any cordial that can be given. The windows and doors must be frequently opened, and the apartment fumigated with the vitrious acid vapour, or the chloride of lime, which I think far preferable to the acid, as it can be used to any extent in all contagious diseases without danger to the patient. It is prepared by mixing one part of the concentrated chloride with thirty parts of water, that is, about half a pound of the concentrated salt to fifteen pints of water. The apartment of the patient is to be freely sprinkled with this mixture twice a day. Sometimes it is also proper, especially if the apartment is in such a situation as not to admit of free ventilation, to leave a pint or two of the mixture exposed in different parts of the patient's chamber, in a basin or some open vessel. This part of the treatment should never be forgotten, on account of a contagious atmosphere being not only injurious to the patient, but on account of the danger to which his friends and attendants would be exposed.

When a patient first becomes ill of this fever, it is generally proper to administer a mild emetic of ipecacuanha, which is often of great utility in clearing the stomach and bowels of their irritating contents, and relaxing the skin. Ten grains of the ipecacuanha powder, and three grains of calomel may be given in

combination every two hours until vomiting is produced. But it is only in the early periods of the disease, and before any severe symptoms of debility appear, that emetics are proper. After this, the bowels should be gently moved by administering daily as much rhubarb in powder, or formed into a pill, as will produce the effect for which it was given, or a purgative mixture made of the compound infusion of senna an ounce and a half; cinnamon water, two drachms; manna, a drachm; epsom salts, two drachms; mix for one dose. This draught to be given on all occasions where the bowels are very torpid at the commencement of the disease, but in no case after the disease has produced debility, or the bowels are regular.

The effusion of cold water is highly recommended in this fever by a number of medical men of high standing in the profession. I have not seen any good result from its use. It may, it is true, cause the sufferer to feel more comfortable for a short time, but I believe it has a tendency, in many cases, to cause congestion of the internal parts to take place.

In most cases, nervous fever calls for an early recourse to tonics, and they are clearly indicated when debility is present; and in general, the greater the prostration of strength, the more necessary they are. But it must be recollected, that it is not by pouring in as much wine and bark or other bitter stuff as the patient can swallow, that the benefit is to be derived from. Very serious and even fatal consequences have been produced by want of discretion in this particular. If in the use of wines or bitters we increase the general excitement, by the largeness or frequency of the doses, a degree of debility follows, corresponding most frequently with the undue excitement previously raised, and by persisting in the practice, so great a measure of weakness and exhaustion is produced that the pulse grows more frequent and feeble till it ceases, never again to return.

The irritability of the nervous system is in this complaint much reduced, and it is only by a cautious mode of proceeding in the use of tonics that we are able to increase it, or to prevent its exhaustion. Therefore whatever species of tonic is employed, the patient should begin with small doses, and if he derives advantage from such quantities, he should be satisfied and follow up the

advantageous course, rather than by trying to facilitate the cure by enlarging the dose, for fear of over-exciting his system. This should be more particularly borne in mind at the commencement of the fever, and when the symptoms of debility are not urgent.

The tonic which I should advise to be used at the commencement, and the one which I have found most effectual, is the muriatic acid. It allays the heat, and tranquillizes the restlessness, at the same time that it supports the strength of the patient, and therefore may be always given at an early period of the disease without danger, and at a time when it would be extremely dangerous to employ either wine or bark. Besides, this acid is a remedy peculiarly well adapted to domestic practice in this disease, it being more manageable than most other tonics, and may be used by unprofessional persons with more prospect of advantage and less risk of injury than they can expect to obtain by giving bark or wine. Ten drops of this acid may be mixed with six or eight drops of laudanum, and four ounces of sage or cold camomile tea, to be taken as a draught every six hours. At the same time two or three table spoonfuls of the camphor mixture should be given every night, to assist in calming the patient and disposing to sleep.

Where there are no symptoms of inflammation indicated by internal pain to counterindicate the use of bark, it may be employed in decoction, or in substance with wine. The best form, however, of administering it, is in that preparation of it called sulphate of quinine, as it does not swell or irritate the stomach in the way which the bark in substance sometimes does. One or two grains of this article given in the form of a pill or powder every six hours, seldom fails in strengthening the patient when given after using proper preparatory measures. If the debility is very great, at the same time half a wine-glassful of the best white wine may be taken every two or three hours.

In the advanced stage of nervous fever, when the above remedies have failed to produce a favourable change, and especially if there is much twitching of the muscles of the mouth or other parts, and constant delirium, a small blistering plaster should be applied to the spine between the shoulders. I have seen the happiest results produced by this application in cases apparently

hopeless. Those who are familiar with the nervous system, will readily comprehend the manner in which its beneficial effects are exerted.

Opium is sometimes of the greatest importance in tranquillizing the restlessness, and supporting the powers of the system in the advanced stage of bad cases of this disease. It is most beneficially given in combination with camphor. I have been in the habit of allowing a grain of opium and four or five of camphor to be taken at bed-time or twice a day, if the inquietude was very great, with the most happy results. In cases attended with a hot and dry state of the skin at a late period of the disease, a grain or two of the ipecacuanha powder may be added to the opium and camphor.

When the extremities become cold, bottles of hot water or mustard plasters may be applied to them. A mild diarrhœa occurring at any period of the disease should not be interfered with; but if it grows excessive, a grain of opium in combination with a drachm of prepared chalk, and a grain or two of powdered cinnamon, must be given every two hours until it is checked. Should bleeding take place from any of the internal parts, (as is very common at a late period of a bad case,) the best way of checking it is by the free use of vegetable and mineral acids, and especially the oxygenated muriatic acid, of which twenty drops may be taken in cold water every three or four hours. If the bleeding becomes alarming, and from an internal part as the stomach or bowels, it may be proper to give a grain of the superacetate of lead, and a grain of opium made into a pill, every hour, or every second hour, according to the urgency of the case, until three or four grains are given—RECOLLECTING, however, that it is an active medicine, and must be used with caution. If the patient should be attacked with severe pain in his bowels after using the lead, he must take castor oil freely.

The food, in all cases of this fever, should be nutritious, but it will not do to take too much at a time. It should be easy of digestion, and given frequently. The best kinds of food are fresh fruit, farinaceous vegetables, as sago, panada, barley, rice, &c. Fresh acid and sub-acid fruits, as currants, goose-berries, grapes, oranges and the like, are very refreshing to patients labouring

under this species of fever, and may be taken freely at all times. The liquid food given should always, if possible, be mixed with some portion of that which is solid, and especially with bread; and when the debility is considerable, the patient ought not to be permitted to remain long without food. No kind of animal food, or even broths are proper while a tendency to feverish excitement continues.

The patient should be allowed to quench his thirst by drinking as freely as he wishes of mild diluting drinks, as barley, tamarind, or toast water. Soda water highly acidulated, is generally very proper.

Blood-letting is practiced by some of the physicians of this city in the treatment of this disease, but I consider it a dangerous remedy, and ought never to be employed, at least to any great extent, as it is certain to lead to fatal results. It is, however, only that class of medical men who bleed for every complaint, and appear to know of no other remedy who practice it. There are cases, notwithstanding, accompanied with congestion of some particular part or organ, which will be benefited by taking a few ounces of blood from the affected part with leeches or cups; but in general, at least in cases of delicate persons, it is more proper, even in such cases, to apply external irritating applications, such as mustard plasters, blistering plasters, and friction.

INFLAMMATION OF THE EXTERNAL PARTS OF THE BODY.

It will be recollected that I have in another part of this work described the symptoms and treatment of inflammation, when situated in the various internal organs of the body; and also many diseases attended with inflammation of the external parts, such for instance as measles, small-pox, St. Anthony's fire, &c. I

therefore intend in this place, merely to describe the symptoms and treatment of that species of inflammation which is produced by external injuries, of whatever nature they may be, excepting such as burns, scalds, and inflammation produced by cold, which will be noticed under separate heads. It is not my intention to make any distinction in the treatment of inflammation situated in the different parts of the body, excepting the eyes, as the same remedies are appropriate to all parts, excepting the last mentioned.

This complaint has been divided by authors into what is termed acute and chronic inflammation. I will describe them under the same head—first the acute, and lastly the chronic species.

Symptoms.—Inflammation generally commences with an increased sensibility of the part; pain is soon perceived, attended with heat, redness, and tumefaction; the pulsation of the arteries in the inflamed part occasions a throbbing which, in some situations, is very distressing to the patient, as when the inflammation is seated in one of the hands. The pain is attributed by the celebrated Mr. Hunter to a spasm of the vessels, analagous, to cramp, tetanus, &c. The swelling is owing to the enlarged diameters of the vessels, and to the effusion of serum and coagulating lymph in their interstices. The heat of an inflamed part never exceeds the heat of the animal at the source of circulation, though the sensation would lead to a contrary belief.

Inflammation is divided by surgeons into what they have termed healthy and diseased, a circumstance of considerable importance in the treatment. By healthy inflammation is understood, that which has for its object the restoration of injured parts, without interfering to any extent with the general health; by diseased, that in which some morbid peculiarity is superadded to the simple act of inflammation, requiring constitutional treatment. The last mentioned species, as I have already stated, has been described with a few exceptions, such for instance as carbuncle, white swelling, &c.

Cause.—The principal predisposing cause of inflammation is a too frequent use of rich stimulating articles of food and drink. All causes which check habitual discharges, whether artificial or natural, especially the secretion by the skin, and all causes which considerably increase the force of the circulation, predispose to

the disease, and if applied suddenly and to a great degree, may act as exciting causes. Whatever increases the impetus of the blood towards the part may become a cause, and all mechanical and chemical irritants are well known frequently to produce it, such for instance as heat, sudden changes of temperature, the action of strong acid, alkalies, metallic salts, acrid vapours, acrid vegetable oils, bruises, wounds, &c.

Diagnosis.—Acute or active inflammation can, for the most part, be distinguished from the chronic form of the disease, by it being attended with considerable heat, redness, and pain in the part affected, and with more or less fever in the general system, together with a hard, quick pulse.

On the contrary, in the chronic form of the disease, or in inflammatory affections of a subdued and imperfect character, the pulse is seldom much changed from its natural action; there is seldom much hardness in the part affected; it frequently, however, has a red appearance, but there are, at the same time, evident marks of languor and debility in the circulation of the part affected, requiring a very different mode of treatment from the former.

Treatment.—In all cases of acute inflammation situated externally, the first circumstance to be attended to is the removal of all such exciting causes as may happen to present themselves. If the irritation is produced, for example, by a splinter of wood having penetrated the part, every one would readily see the propriety of removing it, and such a course must be adopted with every kind of mechanical or chemical irritant present. After this is done, it will be necessary to moderate the increased action of the circulation, by lessening the velocity of the blood's motion towards the inflamed part, and to increase the secretions by means of blood-letting, purgatives, antimonials, and cooling diaphoretic medicines; cold lotions, a spare diet, rest, and a relaxed, easy position of the part inflamed.

If the patient is robust, and the inflammation extensive, attended with throbbing in the part, he should have sixteen ounces of blood taken from the arm, and if this evacuation gives but little relief, it ought to be repeated in four or five hours; but in general, the application of leeches at a short distance from the affected part, or a cooling lotion to the inflamed part will be sufficient,

especially in feeble or aged persons. At the same time we must endeavour to restore free and healthy secretions from the bowels, liver, and skin, by administering purgatives and antimonials. Three grains of calomel should be given immediately, and followed in three or four hours by an ounce of epsom salts dissolved in half a pint of mint water. This dose may be repeated every three hours until it produces the purgative effect, and should the inflammation not yield, in some degree, after six or eight hours, a nauseating dose of tartar-emetic may be given; six grains of this substance may be dissolved in one ounce of cold water, a tea-spoonful of which may be given every hour until sickness is produced, when it may be discontinued until the nausea disappears; after which it is to be given again at longer intervals, or to such an extent as to keep up slight sickness of the stomach until the inflammation appears to be subsiding. At the same time the following cooling lotion is to be applied by means of linen rags: Take of sal-ammonia, an ounce and a half; common vinegar, five ounces; cold water, fifteen ounces. The rags should be wet with this, and spread on the inflamed part six or eight times in succession, suffering them to remain on the part five or ten minutes each time. Sir Astley Cooper says, the best mode of preparing a cooling lotion for an inflamed part, is to mix one ounce of rectified spirits of wine, and five of water, to be applied as the first mentioned.

The whole body, but more especially the inflamed part, must be preserved in as complete a state of rest as possible; and in cases of inflammation of the extremities, a proper position is highly necessary. They ought not to be allowed to remain in a depending position, but be constantly supported in one that is elevated and easy. If the inflammation has attacked a joint, however, it will not always be proper to permit the sufferer to keep the limb in the situation which is most agreeable, for after the disease is subdued, the limb might remain in that position, which would, in many instances, be very troublesome. I would impress the importance of this circumstance particularly upon the mind of the reader, on account of medical men very often neglecting it, and through ignorance or want of proper attention, cause a great amount of suffering.

It should be recollected that in all cases of disease of a joint, the limb should be kept in that position which would be most convenient if the joint was to be rendered useless, and the most proper position is the straight one. I am acquainted with sixty or eighty persons who have been attended by injudicious doctors when labouring under inflammation of the knee joint. They were permitted by their attendants to lay with the affected limb bent, and the result was, after the inflammation subsided the limb continued in its position, rendering the sufferer unable to use it.

The diet must be spare, all spirituous and fomented liquors and animal food being avoided for the first two or three days, or until the acute symptoms have passed away. Watery, cooling, mucilaginous drinks are proper, the best of which are whey, buttermilk, barley-water, water-gruel, figs, &c.

It must be recollected, however, that the depleting remedies are not to be continued, especially in aged or debilitated persons, longer than the redness and pain subsides, for fear of mortification, which is generally the result of debility and not of inflammation, as is supposed by many.

When mortification is suspected, (see treatment under that head,) Inflammation also often terminates in suppuration or abscess. When these circumstances take place, see treatment of abscess.

Chronic Inflammation.

By chronic inflammation, surgeons mean an inflammatory affection of a subdued and imperfect character, in which the part affected often appears redder than usual; but there are evident marks of languor and debility in the external circulation. In short, the cause of the disease is debility, and a debility, too, which often extends, in a greater or less degree, through the whole system. There is seldom much hardness in the pulse.

In delicate habits, this affection generally arises unpreceded by acute inflammation of the part; but in robust frames, and those who are less delicate, it is often a mere sequel or consequence of the latter. But frequently, chronic inflammatory action occurs in cellular or deep seated parts where it cannot be seen, but can be detected by the presence of pain, uneasiness,

and weakness of the part affected. Of such a case of chronic inflammation, that of the knee joint furnishes a good example, which is in its advanced stage commonly termed a white swelling. The enlargement of the glands of the neck and other parts of the body, also furnishes examples of the kind.

I have already remarked, that the cause of this species of inflammation is debility, and this must never be lost sight of in its treatment, because all very active or violent measures which invariably disturb and weaken the constitution, will very rarely fail to aggravate the complaint, and will sometimes do so much injury as no subsequent means can repair. If, therefore, this species of inflammation occurs in the glands of the neck, knee, hip, or any of the large joints, we must have recourse to mild, unirritating measures which are capable of gradually altering the condition of action in the arterial vessels of the affected part, and of imparting strength to it and the whole constitution. These are the grand objects to be kept in view, and for their accomplishment I would advise the remedies to be used recommended for disease of the Spine and Spinal Marrow—(see treatment of these diseases.) It is my opinion that a large majority of cases of disease of the large joints, as the hip or knee, is produced by irritation in other parts. Every surgeon who understands his profession will agree with me, that the cause of pain in the knee joint is, in nine cases out of ten, produced by disease in the hip joint.

It was not my intention when I commenced writing upon this disease, to enter into a detail of the various and particular applications of remedies, likely to be called for in individual instances of chronic inflammation, they being noticed under the heads of such inflammation when situated in the liver and other internal parts. I would again, however, impress the fact upon the mind of my afflicted reader, that large or frequently repeated doses of medicine, bleeding or depleting by any means, seldom fails to aggravate the disease, and it is on this ground that I have opposed the employment of mercury in large quantities in the treatment of chronic inflammation of the liver, and particularly if used with the intention of producing salivation, because salivation invariably irritates the whole system, and of course the diseased parts.

Mercury used in small doses, however, and in combination with antimonials or ipecacuanha, is a remedy of the greatest importance. This, together with the application of leeches, mustard and blistering plasters to the affected part, are the only remedies that are required, and if judiciously employed, will not fail to answer the purpose; but it must be recollected that chronic inflammation is altogether different from the acute form of the disease—the latter can be removed in a few days, while the former requires weeks, and often months, to be subdued.

INFLAMMATION OF THE EYE, OR OPHTHALMIA.

Authors have described several species of ophthalmia, but I shall make no distinction between them in this work, they being all benefited by the same remedies, excepting that species of the disease which is caused by immoral and licentious habits. And notwithstanding these habits are a fruitful source of inflammation of the eye in this city, it is my intention to treat it, as I have treated all diseases originating directly from habits of the kind, with silence.

The *symptoms* accompanying those species of the disease which I intend describing, are:—the patient complains of pain, intolerance of light, and a constant sensation of sand in the eye. In mild cases, the redness of the eye is not very great, and is most conspicuous in the conjunctiva lining the eye-lids. The flow of tears is always much increased, and in severe cases the secretion becomes of the consistency of matter. In more severe cases the disease is accompanied with great heat and redness of the eye; the parts swell, and the vessels of the eye not only increase in size and become turgid, but appear more numerous than in their natural state. With these symptoms there are likewise

great pain upon the least motion of the eye-ball, extreme sensibility to light, and in most cases slight fever accompanied with chills.

After a longer or shorter continuance, these appearances and symptoms gradually abate or entirely cease; but in some cases, although the patient is left free from pain and fever, yet the redness of the eye, and the external marks of inflammation still remain, thereby showing that the *acute* inflammation has terminated, or has assumed the *chronic* form, requiring a corresponding change in the treatment. Generally in this disease, the eye appears red, but occasionally the inflammation is very deeply seated, when it may be making a rapid and dangerous progress without any external redness being apparent, a fact which ought to be borne in mind, not only by individuals generally, but by surgeons. When this state of things is in existence, they may be discovered by the circumstance that the patient will feel excruciating pain from the least pressure upon the ball of the eye.

Cause.—The most common causes of inflammation of the eye are external injuries, such as blows, contusions, and wounds of the organ; extraneous bodies of an irritating nature introduced under the eye-lids; exposure to damp, cold winds; confinement in a moist atmosphere; too free a use of stimulating food and drink; suppression of accustomed discharges, &c.

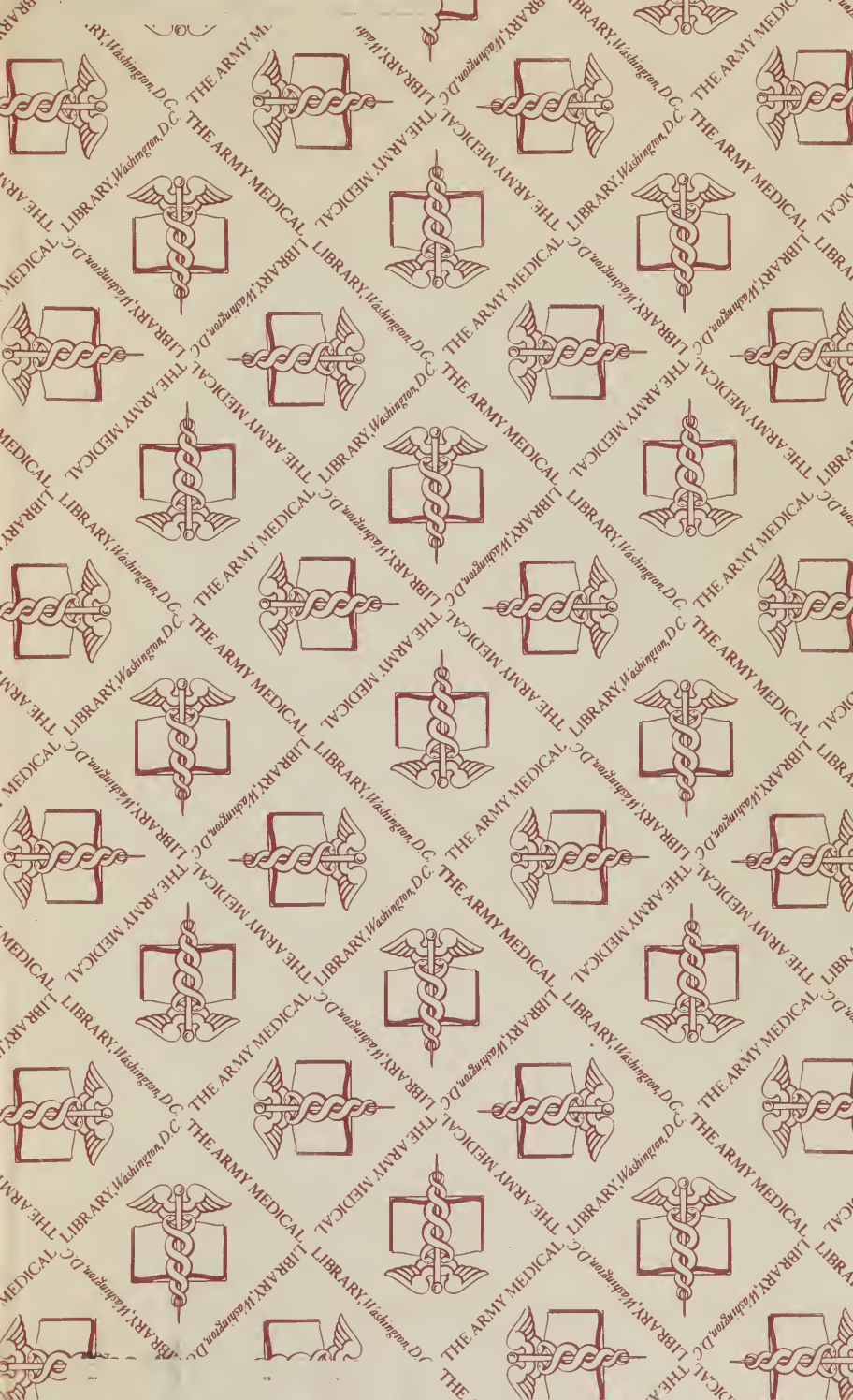
Treatment.—It must be remembered that the treatment I now intend describing, is proper only in cases of inflammation of the eye when accompanied with the most acute symptoms, such as severe darting pain, great redness of the eye or neighbouring parts, attended with a feverish condition of the body. In the first place, especially if the patient is young, and has enjoyed previous good health, a pint of blood should be taken from the arm at once, and five or six leeches ought to be applied to each temple. In the mean time, a purgative dose composed of half a pint of senna tea, with one ounce of epsom salts dissolved in it, should be taken and repeated every six hours, until it produces the desired effect freely. After this has been accomplished, if the fever and pain remain unsubdued, it may be proper in some cases to bleed a second or third time; but in general, the re-application of leeches to the temples will be sufficient.

During the whole course of the inflammatory symptoms, some cooling drink ought to be taken,—the following will be the best: Take of sub-carbonate of potash, a scruple and a half; cinnamon water, half an ounce; common water, two ounces; syrup of orange-peel, a drachm; mix them, and when mixed, add a table-spoonful of lemon juice, or fifteen grains of tartaric acid in powder, and drink it immediately. This draught administered every three hours assists very much in subduing the disease. When the heat and thirst is very considerable, it is frequently advisable to add six or eight grains of purified nitre to each draught, by which its efficiency is much increased. In cases of this disease in delicate young females who are much confined to the house, it will in general not be proper to take blood from the arm: the application of leeches, purgatives, and bathing the feet in warm water, will in general subdue the disease.

It is a very common practice with some old women and doctors, to recommend poultices of some kind to the eye in cases of inflammation, or disease of any species. They are improper and extremely injurious in all cases of disease of the eye, and peculiarly so in cases of the nature which I am now describing, as they have a tendency to cause a determination of the fluids towards the eye, and not unfrequently cause abscesses to form in the substance of the organ, rendering it useless ever after. All that should be applied to the eye so long as the pain and redness are very great, is warm water, or a decoction of poppy-heads made by boiling a few poppy-heads in water, with which a fine linen rag may be moistened and laid over the eye. As the pain and redness subside, the decoction or water may be applied cooler, until at length the coolest water will be the most advantageous.

Every thing must be avoided which would occasion irritation. The patient should be kept quiet, and in a chamber where the light is partly excluded. At the commencement of very acute cases the light ought to be wholly excluded, but when the patient is recovering, it must only be moderated, and the eyes gradually brought to have it in its usual strength. In the worst cases the diet must be very spare, and the same as recommended in inflammatory fever; but in less acute attacks, a mild diet of vege-





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